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ABSTRACT

Designed for equipping teams of local school district personnel, called cadre, to assume leadership of career education inservice teacher training at the secondary level, the project developed two products: a transportable package of instructional materials and a set of organizational procedures. Following a formative evaluation strategy, these products were employed at four four-day workshops that trained 143 educators from four states. Cadre evaluators indicated that the training was moderately effective in helping the cadre teams assume leadership of their districts' career education efforts. At least fifteen of the twenty-four districts involved were progressing in implementing their plans about sixty days after the initial training. Formative evaluation clarified that the strengths of the project were securing local district commitment; enabling district teams to coalesce and to become committed to an ongoing career education inservice effort through the multiple small-group local planning meetings which were interspersed throughout the workshop; and providing a clear, comprehensive framework of career education through concrete illustration of some practices and a definition of major concepts. In addition, formative evaluation suggested multiple minor improvements in the instructional and organizational strategies described and utilized in the project. (The eight instructional modules developed during the project, descriptions of thirty-two exemplary infusion practices, and other information are included in this report's appendixes, which comprise over half the document.) (BM)

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PROJECT CADRE

A CADRE APPROACH TO CAREER EDUCATION INFUSION

A NATIONAL DEVELOPMENT AND TRAINING PROJECT
FUNDED BY THE OFFICE OF CAREER EDUCATION
AND HOUSED IN THE DIVISION OF
VOCATIONAL EDUCATION
AT UCLA

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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EXTERNAL EVALUATION REPORT OF PROJECT CADRE

Garth Sorenson, Ph.D.
Graduate School of Education, UCLA

The question of how to get people to use an improved medical, or educational, or say, agricultural procedure, once that procedure has been invented, is important for both theoretical and practical reasons. The progress of any society is dependent upon the ability to "difffuse" as well as to invent. Project Cadre was concerned with the problem of how to get public school teachers to teach their courses in such a way that students will see the implications of what they are learning for their own careers. The basic assumption in Project Cadre was that although the content of a given academic discipline can be presented in a manner purely academic, it is also possible to present academic content so that students will see its relationship to the economy, to the world of work, and to their own future occupations. This can also be done without any neglect of basic learning. A second assumption was that in order to teach a subject so that students will see these relationships, most teachers will need some new ideas and other intellectual tools.

The purpose of Project Cadre was to develop an effective and repeatable inservice training program for preparing trainers to teach teachers some of the needed concepts and instructional procedures. To achieve its purpose, Project Cadre assembled and developed (a) a "content"--a set of concepts and procedures-which was to be transmitted through trainers to teachers, and (b) a diffusion plan--a set of repeatable operations--by means of which the content was to be taught. The operations, which took the form of a workshop, were tried out and improved during the course of the project, and an estimate was made of their effectiveness.

This external evaluator's report is concerned mainly with the latter element--the diffusion plan or workshop, rather than with the validity of the content--the educational ideas to be diffused. Any diffusion process, no matter how well it is conceived, cannot be effective without sound content. Because of limitations of funds, time, personnel, etc., the validity of the content of Project Cadre had to be assumed, and the primary concern was focused upon how to diffuse new ideas and practices to teachers on the job. Although there are critics in this country who question the validity of the concepts which currently comprise career education, the task of answering these criticisms was not within the scope of the project. Having observed the Project during the course of its operation and having read the final report, it is my opinion that the diffusion aspect of Project Cadre was conducted in a manner consistent with the terms of the grant, that the work described in the final report was conscientiously and effectively accomplished, that worthwhile things were learned about how to diffuse educational innovations, and that these learnings can be applied in other parts of public schooling in addition to career education.

The external evaluation in Project Cadre included the following activities. The evaluator read the proposal early in the project, conducted periodic discussions with individual staff members, inspected the various workshop materials as they were developed, participated in some of the staff meetings at which problems were discussed, and read the final report. In addition, the external evaluator discussed with the principal investigator and the project manager the question as to how the internal evaluation of the project was to be conducted. There was agreement that the primary evaluation effort was to be "formative" in nature. The staff hoped to develop a workshop that would be both effective and "exportable," one that could be used by other educators engaged in inservice training. To emphasize formative evaluation of the achievement of this goal meant that the staff would first develop a plan for a workshop, including the needed procedures and materials, would present the workshop several times, each time observing the effects of the workshop on the various participants, and would revise the materials and procedures after each presentation on the basis of the observed effects or lack of effects.

One of the important features of Project Cadre was that it was designed to teach educators to work in teams which were planning improved practices. Workshop members were selected from among the persons in a position to conduct inservice training in each of the participating school districts, and those from each district constituted a team. The teams began during the course of the workshop to make plans for implementing career education inservice in their respective districts. The idea was to teach career education concepts in such a way that they could and would be integrated into the curriculum by classroom teachers as well as applied by counselors.

Early in the project, the staff gave attention to the task of defining the goals of the project in terms of behavioral outcomes, and of designing workshop activities to effect those goals. In order to make evaluation of their efforts possible, the staff members had to answer two sets of measurement questions. The first was, "What should the participants be able to do at the end of the workshop that they could not do at the beginning? What kinds of performance would indicate that the participants learned what the staff wanted them to learn? How could that performance be reliably and accurately observed?" The second set of measurement questions had to do with "How can an individual participant's progress during the course of the project be measured? How can we define proximate goals that are necessary for the achievement of longer range goals, useful in guiding the various activities of the workshop, and suggestive of measures appropriate for formative evaluation?" The answers to the two sets of questions had to be tailored to the resources available to the project.

In general, the procedure that was followed in answering the two sets of measurement questions was as follows. It was agreed that one of the major outcomes would be a set of written plans, one from each team. The essential criteria for an acceptable plan were specified, and then, "working backwards," the career education concepts and principles were spelled out which it was assumed that participants would need to know before they could construct a plan that would satisfy the criteria. Next, the workshop was designed to teach the needed concepts and principles, beginning with the simplest and proceeding to the more complex, through a kind of "learning hierarchy." The actual process of putting together the workshop materials was not quite so orderly as this simple description would suggest, but the important point is that it was a rational process in which the staff consistently tried to follow the pattern of first specifying the wanted outcomes, and then developing workshop materials and procedures intended to produce those outcomes. The staff systematically collected "feedback," i.e., information about the effects of various component operations on the participants, and regularly revised their procedures after each workshop. In short, the staff made a reasonable effort to apply evaluation concepts as I understand them.

One idea, that of having teams turn in written inservice training plans to be used in their respective districts, turned out to be too ambitious. (I believe that this particular idea, which didn't pay off, was suggested by the external evaluator.) The problem was that to develop an inservice training plan for a district, the participants needed, in addition to the concepts and principles they learned in the workshop, not only planning skills, but also a good deal more information about their districts than most of them had.

Having checked periodically on Project Cadre during the course of its short life, I can say that the staff did conscientiously complete the operations described in their final report, and that that report represents a fair picture of what was accomplished. In my judgment, there were two major kinds of accomplishments. One consists of the materials and the procedures that have been developed for use in conducting workshops for teams of people who want to train teachers to do more by way of career education. Anyone who wants to conduct workshops designed to affect educational practice could make use of these materials. I am not saying they would want to use the "instructional package" as it stands. No doubt they would want further to revise the various components of the instructional program to fit their situation--that is, to continue the process of formative evaluation. But I am saying that I believe that what has been done is sufficiently sound that it deserves further development.

A second kind of accomplishment consists of incidental learnings about the diffusion process that were not anticipated at the beginning of the project. The staff of Project Cadre learned, for example, that people who attend a workshop such as this one, are more likely to apply what they learn when they get back on their jobs if certain steps are taken before they attend the workshop. One essential step is for the project personnel to contact the appropriate decision makers in a school district and get them first to agree that the innovative practices being taught in the workshop are in fact wanted in the district, and second, to assign the responsibility for learning and transmitting those innovative practices to the individuals who are to attend the workshop. If the people who attend workshops know that they will have special duties to perform upon completion of the workshop, they will be much more highly motivated to participate and to learn. Another essential step, since the innovation that is being taught requires the cooperation of people in the district who are not attending the workshop, is for staff members to see to it in advance that participants come equipped with information about their district's policy, practice, attendance, resources, etc., that they will need in order to make realistic diffusion plans. Some of the incidental findings are noted in the final report of the Project, although not all in one place. Some are still in the heads of the Project Cadre members. However, it is my understanding that the associate principal investigator and the project director plan to publish papers which will make explicit more of the incidental information which they acquired.

It is my opinion that Project Cadre was more conscientiously and effectively completed than most similar projects I have reviewed (and there have been quite a number.) As a taxpayer, I feel that the funds for the project were well spent. However, the overall problem with which the project is concerned is so large and complex that it is important not to exaggerate what was achieved in this relatively small enterprise, but to take cognizance of what is left to be done if the idea of teaching teachers to conduct their courses in such a way that students see even a few of the career implications of the content which comprises the various disciplines. During my association with Project Cadre, I became aware of three major prblems. First, what the people supporting the career education movement want teachers to do is difficult. Not nearly enough has been done by way of developing instructional materials that will enable teachers of basic subjects to teach both the content of those subjects and the implications of that content for the students' future careers. A great deal more developmental work is needed. Second, the concept of teacher role held by many, probably most, teachers opposes the role envisioned by proponents of career education. That attitude was expressed by a teacher who said to the project manager, "My job is to teach kids about science, and I need all the time I have for that purpose. It is not my responsibility to teach about jobs or careers." This (to me) limited concept of the teacher's role is generations old and well established. It will have to be dealt with before career education can succeed. Third, there are multiple administrative obstacles, including rules, regulations, and operating incentives, that stand in the way of getting a new instructional practice adopted by teachers after the practice has been invented and teachers are willing to use it. This latter problem is a formidable one and hasn't received as much attention as it deserves. I believe that Project Cadre made its more important contribution by devising a strategy for coping with this problem, which, although it needs to be further developed and refined, has promise as a realistic change strategy.

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Final Report of A Cadre Approach to Infusing Career Education

Under U.S. Office of Career Education Grant #300760271

Melvin Barlow, Ed.D.
Co-Principal Investigator

Charles C. Healy, Ph.D.
Co-Principal Investigator

Division of Vocational Education, Extension Division
UCLA
405 Hilgard Ave.
Los Angeles, CA 90024

Authored by: Charles C. Healy, Ph.D.
James Quinn, Ph.D.

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Introduction

Project Cadre ran from July 1, 1976 to June 30, 1977. In that time, a transportable set of instructional and evaluation materials was created and used in equipping 143 educators to become teams that would provide inservice training within their local school districts. This report describes the project. Chapter 1 presents its purpose and broad questions; Chapter 2 reviews its rationale; Chapter 3 describes its operation, its methodology, and its plan for data analysis; Chapter 4 presents its findings; Chapter 5 discusses the findings and presents the reflections of the staff on those findings; and Chapter 6 is a short summary of the report.

Cooperation was essential to the success of the project. From its outset, many persons were generous with their time and energy. These included the members of the advisory committee listed in Appendix B, the state directors of Career Education in California, Illinois, Maryland, New Jersey, and Wisconsin, and UCLA graduate students in Counseling and Vocational Education who previewed materials in UCLA classes. Special thanks, however, are due to the site coordinators: Mr. Adrian van Zweden in New Jersey, Mrs. Donna Fuscon in Illinois, Mr. Bob Thompto in Wisconsin, and Mr. Walter Gembic in Los Angeles. Without the untiring help of these dedicated career education leaders in identifying and recruiting cadre teams and in arranging workshops, the project would not have succeeded; their contribution was critical.

The project was also most fortunate in having a dedicated staff. Their contributions are noted in the report, but their names and titles are listed below for easy identification.

Charles Healy, Ph.D., Associate Principal Investigator
James Quinn, Ph.D., Project Manager
Patrice Elster, Research Assistant
Carmen Mathenges, Secretary
A. Garth Sorenson, Ph.D., External Evaluator
Lou D'Lia, Part-time Research Assistant
Sharlene Thompson, Part-time Research Assistant
Betty Johnson, Part-time Research Assistant

Finally, the project obtained continued assistance from Mrs. Nancy Goff (Sarten) in interpreting the multiple government and university regulations governing the project and in securing salaries for personnel. Her patient know how often helped sustain the staff.

Unfortunately, the project was not funded for 1977-78, and resources are no longer available to disseminate the products of the project or to invite collect telephone inquiries. However, the associate principal investigator will be happy to try to answer questions which you may have by telephone at (213) 825-3000 or by mail.

Melvin Barlow, Ed.D., Principal Investigator
Charles Healy, Ph.D., Associate Principal Investigator

Abstract

Project Cadre, July 1, 1976-June 30, 1977, created a set of transportable instructional materials for equipping teams of local school district personnel, called cadre, to assume leadership of the career education inservice training of their teachers. Following a formative evaluation strategy, the set of instructional and organizational procedures were employed at four four day workshops in training 143 educators from four large states. These educators comprised 24 school district teams plus observers from state departments of education and other districts.

Cadre evaluations of the training and their reported team development and planning progress indicated that training was moderately effective in helping the cadre teams to assume the leadership of their districts' career education efforts. At least 15 districts were progressing in implementing their plans at follow-up in May and June, which was about 60 days after initial training. Cadre satisfaction and optimism were related more to their district's support of their efforts than any other variable.

Formative evaluation clarified that the strengths of the project were: (a) securing local district commitment to the development and support of career education teams, (b) enabling district teams to coalesce and to become committed to an ongoing career education inservice effort through the multiple small group, local planning meetings which were interspersed throughout the workshop, and (c) providing a clear, comprehensive framework of career education through concrete illustration of some practices and through definition of major concepts. In addition, formative evaluation suggested multiple minor improvements in the instructional and organizational strategies described and utilized in the project.

The products of the project are the package of instructional materials (Appendix K) and the project's explicit organizational procedures (Chapter 3). These are sufficiently detailed to be replicated or adapted to local learner needs.

Chapter 1

Purpose and Rationale

Our purpose and rationale guided us throughout this project. They are described here along with the evidence documenting the need for this project and the questions which the project tried to answer.

Purpose and Rationale

Students need career education; effective career education requires knowledgeable, enthusiastic classroom teachers; competent teachers require appropriate, ongoing inservice training; and meaningful inservice training requires competent trainers and a supportive district. Assuming these premises, Project Cadre was designed to start a corps of trainers, termed cadre, capable of inservicing classroom teachers in career education.

Phase II of our effort, which is reported here, involved both the creation of a set of transportable materials and methods for teaching the essentials of career education and inservice training and the instruction of 143 educators by means of the methods and materials. Phase I pilot tested the feasibility of such a project and suggested content and instructional methods (Healy, 1977).

Since the curricular implications of career education are not fully defined and few educators are equipped to provide training career education, the project was undertaken from a formative evaluation perspective. This perspective recognizes that these initial efforts can clarify what are optimal methods and appropriately trained cadre but are unlikely to produce either immediately. More specifically, methods and materials were defined, developed and employed in such a manner as to be replicable and thus transportable. Then initial instruction by these methods and materials was delivered to a relatively small number of prospective cadre, rather than large numbers, in order that the instruction could be carefully monitored and improvements suggested through delivery. In the next phase it is hoped that the 143 cadre can be followed up to determine the contribution of their training to their inservice activities and to identify gaps in the training and components of it needing revision. Viewing the training of cadre as a process to be clarified through its delivery permits examing outcomes in terms of how they can be built upon rather than only in terms of whether the immediate outcomes justified the project's expenditures.

There have been many federal projects in career education, and a significant number of these have involved inservice training. Disappointingly, however, examination of the reports of these projects offers little specific guidance about the methods and materials to use in either doing career education or inservicing a staff in it. Comparisons of results with proposal objectives are equally disappointing, not because the projects were done poorly, but because too much was sought too quickly without provision for development. These reports also fail to explain what, if anything, sustains the career education which is effective after federal funding ceases. This project sought to be different through a formative evaluation approach with its emphasis on detailed description of methods and materials and through incorporation of the strategy of helping serviced educators to build local teams that would sustain and extend their career education efforts. Consequently, high priority was given to creating transportable materials and methods, to establishing local teams committed to inservice training, and to enabling the teams to make viable plans for such training.

The Need

The need for this project is fourfold. First, career development is a continuing process requiring ongoing accomplishment of career development tasks and the building of competencies for decision-making and planning (Crites, 1973; Ginzberg, 1972; Super, 1957, 1969). It is recognized nationally and regionally that there will never be enough counselors to provide the ongoing help needed by youngsters to build such competencies. Those concerned with career development have asked teachers to give more help to youth in accomplishing career development tasks as part of their classroom learning (Dunn, 1973; Hoyt et al., 1972, Marland, 1974).

Second, teachers require inservice training for acquainting them with the methods of assisting students with their career development. Many have called for teachers to infuse career education into teaching (Bottoms & Burkett, 1975; National Advisory Council for Career Education, 1975; Briggs & Green, 1975), but surprisingly little has been said about how to do such infusion in today's secondary school classrooms. Many new career education materials are available to stimulate career development, but most materials are not easily integrated into the typical English, social studies, science, business, home economics, or shop classroom. Infusion requires special teacher efforts and, consequently, special teacher training. Therefore, there is great need to define effective methods of infusing career education and to show teachers how to use those new methods.

Third, inservicing teachers for infusing career education into teaching is a new field of training. Few personnel are available, and with the exception of districts and teachers colleges in states such as Oregon and Arizona that have extensive, state-funded, staff development programs, there are few teacher education institutions or school districts capable of providing ongoing, systematic inservice training. Consequently, school districts, as the institutions with prime responsibility for their staffs' development in career education, need well-defined, adaptable, self-sustaining methods of staff development such as the transportable team development method of this project.

Fourth, insofar as instructional strategies, including those aimed at staff, can be improved most surely through formative evaluation, a promising transportable method of inservicing should be refined through formative evaluation. Moreover, the benefit to inservice trainers of participating in formative evaluation should be clarified.

Questions

In this early phase of the project, answers were sought to several broad questions essential to the purpose of creating a cadre of competent inservice trainers. The questions and the data sought to answer them are presented below.

1. Can an integrated, transportable, economically feasible instructional program for inservice trainers in career education be developed and demonstrated effectively?

   The answer to this question will be yes if a set of clearly defined methods and materials is constructed, if the instructional package is viewed as unified by users and is delivered to different users in essentially the same manner, and if prospective users are satisfied and feel it helps them to do the intended inservice.

2. Do graduates of the instructional program increase their knowledge of essential career and inservice education concepts and practices; have they become members of local career education teams; do they construct systematic plans for delivering inservice training in career education to teachers; and do they deliver inservice training in career education which provides a broad framework and embodies essential concepts in self-development, career awareness, career planning and problem solving, and collaboration among community and school personnel?

   Although there are multiple parts, this question examines how the program as currently defined impacts on the cadre. The answers will come from examining: cadre cognitive knowledge of career and inservice education, cadre membership in career education teams, cadre-produced plans and the concomitant planning activity, and cadre-delivered inservice training.

3. What improvements in program content and delivery are suggested by live delivery of the instructional program?

   This is a key question to a formative evaluation program. Suggested improvements can be obtained: by soliciting systematic observations from the project staff; by examining delivery of particular instructional units; by asking cadre for suggestions; and by examining the relationships of performance in particular instructional units to performance outcomes.

4. What characteristics of cadre are associated with high performance and satisfaction with instruction?

   Answers to this question may suggest selection criteria. Answers will come from examining the relation of different cadre characteristics to performance and satisfaction.

5. What kinds of school districts are more likely to profit from the instructional program?

   The relations, if any, of district characteristics to district follow-through on planning and inservice training offered, and to the collective performance and satisfaction of district cadre personnel, will be examined in order to try to answer this question.

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Chapter 2

Assumptions Underlying Project Cadre

Project Cadre had two interrelated goals: the development of transportable materials and procedures and the creation of teams of cadre who would inservice the secondary school educators within their district. The materials were to be used in equipping cadre for their inservice, and the procedures were to include specification of the means of recruiting and relating to cadre. The instructional materials and project procedures were based upon two assumptions. The first concerned what cadre needed to understand and to communicate to teachers who would infuse career education. The second related to who the cadre were to be and to what the cadre should experience in order to coalesce into teams which could deliver inservice to teachers. The premises of the two assumptions are presented in this chapter. They are the rationale of the project's transportable materials and procedures.

Understandings Essential for Inservicing Teachers in Career Education

Career education has become a major American educational thrust. Its leading promotors, Marland (1975) and Hoyt (1973), encouraged educators to define it in terms of the unique characteristics and needs of their states and districts. Such personalized definitions gave ownership of the ensuing programs to the local leaders and increased the probability that the programs would fit the community needs. The advice also enabled the term "career education" to enjoy the political support of many communities and educators who had diverse views about what career education should accomplish and how it should accomplish it, and it encouraged diverse programs to be tried. As a consequence, much information about different kinds of programs relating education to work is being generated.

An Emerging Definition of Career Education

By 1974 concensus on what career education is was emerging. The Office of Education differentially encouraged some programs while discouraging others through its funding (National Institute of Education, 1974). At that point it was clear that career education was referring primarily to those programs which help a person to know about educational and occupational opportunities; to have more ways of pursuing those opportunities; to understand his abilities, interests, and values within the context of these opportunities through broadened programs and interchange with the comunity; and to plan and solve problems in such a career context.

Although other elements such as appreciation of our economic system, spirit of cooperation, or training in particular occupational skills are sometimes added, most career programs include provision for at least self-awareness, career awareness, and career planning and problem solving. The recent definition of career education by the Office of Education in its recent request for proposals provides further testimony of the growing consensus among U.S. educators.

Career Education Infusion

As educators have increased their concensus about what career education should do, they have also increased their agreement that career education requires direct input of classroom teachers of many, if not most, subjects. Consequently, language, science, mathematics, vocational/business, social science, and physical education teachers are being called upon to offer career education. One major strategy by which teachers can meet this call is termed infusion. By infusion career educators mean that lessons from subjects can be expanded or their delivery modified so that a youngster learns about himself in relation to work, or about career opportunities, or about career planning and decision making as (s)he achieves the traditional objectives of the lesson. For instance, a lesson on cartooning could be expanded to teach about occupation while teaching art. The high school students could be assigned to caricature occupational stereotypes rather than other possible subjects. In preparation, individuals or teams could research an occupation to determine its characteristics. Then, when the drawings were completed, the class could try to guess the occupations caricatured and discuss the accuracy of the stereotype in portraying the entry requirements and job duties which are truly a part of the occupation. Through such an exercise, students would not only achieve their art goals, but could become aware of a host of occupations and could learn of the need to examine the accuracy of stereotypes closely in determining the suitability of particular career opportunities for themselves.

Prerequisites of Infusion

A task analysis of infusion indicates that the teacher must know the overall purpose of the activity as well as particular concepts and practices for infusing self-awareness, career awareness, and planning and decision making. In addition, the teacher should have rehearsal in the practices and receive corrective feedback. Moreover, since infusion practices need modification and adaptation to particular classes and since they can be enhanced by community resources, the teacher should be acquainted with the process of formative evaluation and the available community resources.

Especially important to the prospective career educator is an understanding of the why and what of career education. The classroom teacher, whether academic or vocational, is being asked to change the delivery and content of instruction and to implement the change enthusiastically. As guardians of our culture's store of knowledge, teachers must ask why and then assure themselves that what they are being asked to do is logical and empirically sound. Fortunately, career education has a developing rationale, an evolving set of concepts, and an expanding research base which provides reasonable justification for it. This insight into career education can be given to educators in such a manner that they become enthused and capable of enthusing others whose support will be necessary for a career education program.

Finally, persons who would show teachers how to infuse career education need to be exercised in problem solving. They must not only assist the teacher to adapt particular practices to his/her classroom, but they must also sustain the teacher in making changes. As with any educational innovation, career education infusion will require adjustments. Sometimes it will succeed quickly and dramatically, but other times it will bog down or its success will be hardly perceptible. At those times, teachers need aid in revising their approach or support in continuing. The inservice trainer equipped with a strategy for dealing with these inevitable setbacks is likely to succeed, whereas trainers without a strategy risk failure.

Instructional Units for Inservice Educators

The preceding premises support the construction of eight instructional units or modules for those who will lead inservice training in career education infusion. The modules would cover: (1) rationale of career education, (2) principles and practices of building self-awareness, (3) principles and practices of promoting career awareness, (4) principles and practices of career planning and decision making, (5) practice and feedback in delivery of infusion, (6) integrating community resources into career education, (7) principles and methods of formative evaluation, and (8) a strategy of sustaining career education innovations or a coaching module.

In this project, seven of the eight modules were eventually constructed, and six were delivered. The supervised practice module was deleted because it required extensive workshop time, and the coaching module could not be delivered because of time constraints. The modules were constructed in a manner which permitted the cadre to deliver them to teachers in a similar way, if they deemed that appropriate.

Cadre Teams

Many educational innovations have been launched over the years. Yet few have continued to be implemented. Even when evidence has been accumulated that an innovation contributes, there is a good chance that it will be dropped when its special funding stops or its initiator moves to a new position (Pincus, 1975).

Common sense indicates that innovations will be accepted and sustained if those supposed to change are represented in the group that plans and decides the changes, if several persons accept responsibility for bringing about change and work together as a team rather than as individuals, and if the education system in which they work supports the change which they propose.

Some of the limited research and writings on inaugurating and sustaining career education suggest this too. In a study of the institutionalization of new academic programs, Ross (1976) identified conditions related to the adoption of two types of programs. Programs for "emerging standard disciplines," such as linguistics, and computer science were related to the availability of slack resources and program size. Adoption of programs in less accepted areas such as ethnic studies was related to the above conditions as well as the existence of internal constituencies for these programs and an authority structure that allows for administrative leadership within a decentralized system.

Manneback and Stillwell (1974) described a systems approach for installing a career education program. The steps are: (1) involve and orient key groups, (2) analyze the educational system, (3) define goals, (4) select or create the career education program, (5) prepare for program installation, (6) implement program, and (7) evaluation program. The installation of the program should involve a broad range of school personnel--administrators, supervisors, counselors, school psychologists, and a core of representative teachers. This group prepares the concept and content guidelines and inservices the other personnel. The inservice orients the staff to the philosophy and goals of the program and plans activities around specific goals.

In a study of the current status of planning in the public school systems in New York State, Goldman and Moynihan (1975) identified two process variables which must be effectively handled in order to achieve the desired outcomes. These are initiation and diffusion. Planning is initiated at some point in time and is driven by the behavior of the initiator(s). This was found to be mainly the result of the chief administrative officer and certain external agencies that initially interacted with him. Initiating behavior included legitimizing the process by obtaining formal approval, providing active leadership by developing a structure within which planning would take place, holding early meetings with others to explain ghe goals, and making initial contacts with planning consultants.

Educational planning must diffuse through the system in order to be effective. Important factors in diffusion are (1) the scope and pattern of participation and (2) the mode of participation. Different diffusion models were identified, but the most popular was from internal to external (professional staff to lay community). Important factors in achieving implementation of the planned change were commitment, legitmacy, and political control.

Based upon the above premises, it was decided that groups of cadre representing different educator roles within a district be recruited from districts supporting career education. They would then be trained and encouraged to become teams for inservicing district personnel. Individuals alone are more likely to become discouraged or distracted. Likewose, study of the follow-up of inservice career education training in Arizona (Bloss, 1975) strongly suggested that district support for career education is essential for inservice training to have an impact. And as Manneback and Stillwell (1974) noted, different educator groups are more likely to accept change which their representatives helped to plan.

To recruit appropriate cadre and to develop career education teams, the following strategy was followed: career education leaders at the state and district levels were identified. They in turn identified possible participating districts. These districts were informed of the project and invited to send teams comprised of educators in different roles. At the start of the workshop the cadre were reminded that one of their major tasks was to become a team focused on career education. During the workshop, up to seven hours of the workshop time was allotted for team planning of the prospective career education inservice, one-two hour module reviewed planning concepts in order to help all cadre participate in the team's planning, and the closing two-hour session enabled each team to present the results of planning efforts. The project staff reinforced regularly any cadre movements to work in teams and to clarify issues regarding career education among team members. Follow-up focused on assisting with teams and in evaluation teams rather than individual cadre's progress.

In the project, the preceding strategy was generally followed as intended. The strategy required construction of one module on Planning Career Education Inservice. During the workshop one-hour blocks of time were allotted to cadre after every module (a total of seven) to integrate the module material into their planning and to continue planning, and the final session was devoted to cadre teams sharing their planning.

CH:10

Chapter 3

Program Activities and Methods

Project resources were allocated to developing instructional methods and materials and to recruiting and instructing an appropriate cadre by means of those materials. This chapter describes the development of the project, the characteristics of participating cadre and their districts, the training design and delivery, data gathered to analyze the program's impact, and the specific questions to be explored in that analysis.

Program Development

From its outset the staff recognized that the program had six facets: identifying districts which could utilize qualified cadre and would send cadre for training, establishing and maintaining liaison with those involved in the program, developing and locating suitable training materials, constructing criterion-referenced measures, delivering the workshops and follow-up troubleshooting sessions, and evaluating the program's operation and outcome to identify needed corrections and meet accountability requirements. This section describes the resulting activities.

Identifying Districts

Guiding the project were two questions of Dr. Sorenson, the external evaluator: "Who are the targets of training?" and "What are they supposed to do after training?" By reminding us that our objective was for the proposed 100-120 cadre to be able to do inservice training in career education which would impact as many teachers as possible, these questions moved us to insure that external factors supported, or at least did not obstruct, such action. Initial staff meetings focused on identifying and recruiting qualified cadre from supportive districts in relatively dense population areas. After several deliberation sessions, it became clear that staff could specify criteria but would be dependent on local educators to identify those qualified. Thus, the project manager's recommendation that state directors of career education in the large states recommend site coordinators, who in turn would identify and help recruit appropriate districts, was adopted and implemented. Because it was critical to have suitable cadre, resources were appropriated for compensation of coordinators, and one month of the project manager's time was allotted to recruitment of cadre and coordination with site coordinators. The Advisory Committee approved this action and participated in the selection of site locations.

To further increase the probability of attracting cadre who would eventually do inservice, the author, on the basis of the rationale in Chapter 2 and experience with the 1976 pilot project (Healy, 1977), directed recruitment of teams of trainers rather than individuals. In the pilot phase of the project, the participants had worked together effectively and with high satisfaction in planning a career education inservice for a simulated district. Most participants expected to work in their schools or districts as individuals after the workshop. One group of cadre from Nevada, however, had worked together before. They used the workshop and the planning exercises to cement their relationship and to arrange future operaions. Their efforts appeared especially profitable, and observing them suggested that teams of educators are more likely to carry out innovations than individuals.

To insure that the local teams had expertise in administration, inservice teaching, and career education, and that their plans would have teacher input, it was recommended that district teams be comprised of a district administrator, a school administrator, or a specialist in inservice training or career education, and at least one pair of teachers from one of the schools to be inserviced.

The project staff selected from the 50 states those states in each sector which satisfied two criteria: active support for the career education infusion concept, and size of regional service areas (lrge metropolitan-type service areas were preferred). The selected 23 states were grouped into four geographic sectors and submitted to the project's Advisory Group for ranking. The Advisory Group ranked the states in terms of the need in the state for cadre-type training, the probability of success, and other self-selected criteria. The results of the rankings (low=1, high=10 points) appear in Figure 1.

At the same time the project manager sent a letter of invitation (Appendix A) to the career education coordinator in each of the 23 states. The state coordinators were asked whether the state would participate in the project and, if so, to identify three possible site coordinators from three different regions in the state. Of the 23 states contacted, 14 responded affirmatively.

The project manager next telephoned the state coordinators and discussed prospective site coordinators for the highest-ranking participant state in each sector. When contact could not be coordinated with the highest-ranked state in the South, the project decided to include as tentative training sites two highly-rated neighboring states in the Midwest. This procedure facilitated coordination and efficiency, but increased notably the size of the service area in one sector of the country.

As a result of these procedures, four tentative training sites were identified: California, Los Angeles County; Wisconsin, West Milwaukee; Illinois, Northwest of Chicago; Maryland, Prince George's County. Using the referrals by the state coordinator, a site coordinator for the project was designated and then contracted for each training site. Site coordinators were offered a $400 fee for their services. When the coordination with Maryland collapsed in late December after extensive

Figure 1. Ranks of States by Sector on Need for Cadre-Type Career Education Training

West	
California	80
Colorado	51
Hawaii	30
Utah	41

Midwest	
Illinois	37
Indiana	32
Kansas	30
Kentucky	23
Michigan	37
Missouri	18
Wisconsin	48

East	
Maryland	42
Massachusetts	17
New Jersey	46
New York	31
Pennsylvania	15
Rhode Island	25

South	
Alabama	22
Florida	32
Georgia	37
North Carolina	16
South Carolina	13
Texas	28

preliminary arrangements with district offices, the second-highest state in the East, New Jersey, was recruited. Since strong interest was expressed by a site coordinator in the Newark area, northeast New Jersey eventually became the fourth project training site.

The major coordination with sites occurred in a two day session in November 1976. The project manager met with the site coordinator at their tentative training sites for two days. The purpose of the meetings was a comprehensive orientation, not only for site coordinators, but for project representatives at the district level and selected high school principals, specialists, and teachers. This pre-workshop coordination at the district level was critical for success. At every orientation and coordination meetings the collaborative approach to training (team-building) and the expected post-workshop implementation were emphasized. Site coordinators were encouraged to invite the school districts which might utilize the team approach at the workshop. Similarly, district level representatives at the orientation meetings were asked to participate only if a team of planners-leaders-trainers could be recruited and post-workshop implementation (the inservicing of regular classroom teachers) had district level support and some probability of success (Appendix A).

Except for Los Angeles and New Jersey, which replaced Maryland, an initial two hour orientation meeting was held at the tentative training sites and included the project manager, the site coordinator, and district representatives invited by the site coordinator. Following this session, the project manager scheduled a series of meetings to be held the next day at high schools which had been identified as likely participants. The school meetings usually included the project manager, the principal, a vocational education or career education or guidance counselor specialist, an assistant to the principal, and a teacher or two. A common result of these meetings was a tentative agreement about the nature and extent of the district's participation in the workshop. Following the school meetings with the project manager, further district/school negotiations were handled by the site coordinator who, in consultation with the project manager, was delegated responsibility for final selection of the training teams.

The collaborative approach to site selection and the recruitment of training teams consisted then of a network of hierarchically arranged offices such that the channels of communication included the project manager, the state coordinator for career education, a regional site coordinator for Project Cadre, and administrative and teaching representatives of districts and schools. The network of channels was thought to increase the collaboration necessary for post-workshop implementation as well as to heighten the accountability for planning and coordination.

The procedures used in California varied, such that the project manager dealt with associated offices of Los Angeles County schools for site coordination, and not from the state coordinator to his/her designated site coordinators.

Liaison

Cadre identification and recruitment were a major part of the liaison effort. But ongoing contacts were also attempted with California State Department of Education, the project's Advisory Committee, other related projects, the site coordinators and their state career education officers, and through the site coordinators, the cadre themselves.

Contacts with California State Department of Education. Mr. Paul Peters, California Director of Career Education, served on the Advisory Committee and was kept abreast of the project's progress periodically by telephone, mail, and personal meetings at Los Angeles in October and Houston in November 1976. In addition, contact was maintained with Dr. Ann Upton, the California Director of Student Personnel Service, through personal meetings with Dr Bruce Lowrey in February and May 1977, and through sharing materials by mail.

Other projects. Liaison with other projects was irregular. The authors met with other project directors in Washington, D.C., in August 1976, conferred with some in Houston in November 1976, and others again in Monterey in January 1977. Results of this year's project are being forwarded to directors of projects of a similar nature in Oregon and Texas, and time and funds permitting, this author will compare this project with the Texas project in order to share resources and findings for possible continuation by both projects. In spite of the fact that communication was irregular, our project learned about promising practices and evaluation concepts through those contacts.

Site coordinators. Liaison was developed through personal meetings and it was maintained largely by telephone with the four site coordinators: Mr. Walter Gembica, Consultant, Los Angeles County Schools; Mr. Robert Thompto, Director of Career Education, West Allis Public Schools, West Allis, Wisconsin; Mrs. Donna Fuson, Director, Career Education Area Service Center, Arlington Heights, Illinois, and Mr. Adrian Van Zweden, Project Director, Wayne Career Education Program, Wayne, New Jersey. Upon request, these coordinators arranged recruitment meetings with districts, and secured and made workshop site arrangements and, as important, they enthusiastically supported every aspect of the project. Their contribution was invaluable, and their states' career education officers deserve commendation for selecting such energetic people.

Dr. Quinn maintained close liaison with these coordinators by mail and telephone, before and after the workshop. He and this author met with one coordinator in Houston and two in Los Angeles before the workshops, and Dr. Quinn visited all sites except New Jersey in November. In addition, two site coordinators, Bob Thompto and Donna Fuson, arranged follow-up meetings with cadre.

Cadre. Budget cuts prevented a direct needs assessment of prospective cadre and limited our direct contact with them to the workshops and follow-up. At the workshops cadre received the authors' business cards, and they were encouraged to write or telephone for assistance. In later phases of the project, it is planned to ask the advice of the 1977 cadre about workshop content and format. Moreover, it is hoped that available resources will permit assisting these cadre directly through formative evaluation. In the future, early direct contact with prospective cadre will receive a high priority.

Advisory Committee. The Advisory Committee was recruited from participants in the initial phase of the project. Cuts in the travel budget prevented inviting persons from outside of California to serve. Nevertheless, examination of the membership of the committee in Appendix B shows the broad expertise available to the project staff.

Appendix C presents the minutes of the Advisory Committee meeting on October 12, 1976. In preparation for the meeting, the Advisory Committee received the materials in Appendix D. Every Advisory Committee member, as well as Mr. Lowrey, was invited to the first cadre workshop in Los Angeles. Dr. Taxis, Dr. Swan, Mr. William Bradfield, Dr. Melvin Barlow, and Mr. Warren Valdry were able to attend part of that meeting, and their reactions and comments were solicited.

Training Materials

Remembering that the cadre were learning so that they could, in turn, teach classroom teachers and that much of the cadre's learning would necessarily occur in a four-day workshop, the project staff and Advisory Committee agreed that the eight broad areas below should be addressed in the workshop. Instructional units or modules were then prepared in these areas. The eight areas are: theoretical framework, self-development, career awareness, career planning and decision-making, community collaboration, evaluation, program and implementation planning, and ongoing consulting with, or coaching of, teachers doing career education.

The broad goals were chosen largely on the basis of review of the 1976 pilot project (Healy, 1977), which itself had been informed by literature review and an Advisory Committee, and by review of recent career education developments by the senior author.

The actual content of the modules was developed from August to December 1976. After the broad focus of each module and the probable instructional content were determined, detailed performance objectives for each area were written. These objectives were critiqued, discussed, modified, changed, and rewritten by staff. All were completed by October and their relevance to career education inservice was reviewed and affirmed by the Advisory Committee. Appendix E presents the abstracts of the modules, which were used in obtaining Advisory Committee reactions and in announcing the nature of the cadre workshop to prospective districts.

Next, the objectives became the basis of developing the content and organization of each module. In the process of constructing modules, there were a few changes in objectives: a few were deleted or added, and some were rewritten to be more concrete. Comparison of the objectives in Appendix F with the objectives of the modules in the accompanying materials package will indicate the particular changes.

Individual staff members were assigned major responsibility for particular modules, although the senior author retained responsibility for content. Each decided the final content and instructional method, guided by the need to vary instructional method in order to sustain interest. The senior author, based on his direction of the 1976 project and review of essential career education literature, developed the following modules: "Infusing Self-Awareness and Self-Confidence into the Classroom," "Infusing Career Planning and Decision-Making into Classroom Instruction," "Infusing Career Awareness," "Integrating Community Resources into Career Education," and "Career Development as the Integrating Concept of Career Education." Editorial assistance was provided by staff. The exemplary practices that accompany these modules were located and in part rewritten to be more repeatable by Ms. Patrice Elster under the direction of this author. Mrs. Carmen Mathenge created the format for these practices.

Dr. Quinn constructed the modules on "Planning a Teacher Training Inservice for Career Education" and "Coaching Classroom Teachers Who Experience Career Education Infusion Problems," with editorial assistance from the staff. The module on "Evaluating Your Inservice" was developed jointly by Mrs. Betty Johnson, Dr. James Quinn, and Dr. Charles Healy.

An important training objective was for each team to leave the workshop with a written plan for career education infusion implementation in the local district/school. The project intended to relate the workshop design and delivery to planning effectiveness and to monitor the successful/unsuccessful implementation of the plan developed by each cadre team.

To support its planning purposes, Dr. Quinn developed the planning forms and guidelines for using the forms. A five-step planning model for the inservicing of teachers in career education was used to develop the planning forms. The five steps of the model were called management steps and the planning forms were intended to help cadre describe systematically the procedures or operations the team would have to complete in order to complete each management step successfully. The forms were described as representing sequential steps in a Management and Operations Plan, or an M & O Plan.

The structure, purpose, and uses of the forms were described to the workshop teams during module delivery on the afternoon of day one. Each team was distributed a large-scale set of five planning forms, measuring 19x25 inches each, called a Master Plan. Participants were likewise referenced to the small-scale model of the master plan contained in their material packet. The five steps of the planning model were: identifying the learning/training needs of students and teachers, converting learning needs into performance objectives, planning a program to achieve objectives, program implementation, and evaluation. On the small-scale planning forms a number of the operations usually needed to complete these steps successfully were identified for the cadre. The planning forms and guidelines for using them can be found in the original workshop materials on pages 425-438.

Criterion-Referenced Measures

Pre-posttests. Evaluation materials were prepared from November to January. Three test items were written for each module objective. There were 74 objectives and, consequently, 222 items. These were distributed among four pretest and four posttest forms and one progress test for each module. Each cadre completed one pre- and one posttest and the progress test for evaluation. Since there was no published test of knowledge of career education and inservice principles, the project gathered data on a range of items as the first step in constructing a criterion-referenced item pool for such knowledge. The small N responding to each pre-posttest precluded computing meaningful indices of internal reliability. Use of the measures in the study was recognized as only experimental, since their validity was based solely on the judgment of the staff who developed them. Dr. Quinn, based on five years of test development, supervised Mrs Sharlene Thompson and Ms. Patrice Elster in construction of these items. These staff examined the objectives and the module content designed to develop the objective, and then they wrote items. Each item was reviewed by teachers for comprehension. Expert judges will be used in establishing the content validity of revised items and tests.

Other measures included a General Satisfaction Scale to measure reaction to the workshop as a whole, an Expectation Scale to assess the cadre's beliefs about what the teachers they trained would do, and a Module Rating form to measure cadre reactions to the workshop. Both the former appear with the original workshop materials. Analysis of results from the workshops shows that the Satisfaction Scale, comprised of 17 items, has an alpha coefficient of .96 for an N of 111, while the Expectation Scale, comprised of 10 items, has an alpha coefficient of .98 for an N of 111. The Satisfaction M=59.35, SD=21.8 in a range of 17-85; the expectation M=27.72 and SD=17.95 in a range of 10-40. Mr. Louis D'Lia composed both to be criterion-referenced for the workshop under the direction of the senior author. The senior author created the module evaluation form which appears in Appendix G in response to the need for such information manifested in the Los Angeles workshop. Consequently, it was not used until after the Los Angeles workshop.

Career growth index. This was a 40 item self-rating on attributes which logically and/or empirically relate to career maturity in adults. Each item was rated on a scale of one to five. The first 20 items are from the Career Development Inventory College Form (Super et al., 1973). The 20 items were used with permission of Professor Super. The remaining items were written in parallel form by the senior author. The scale appears on page xv of the materials. The 40 item scale had an alpha coefficient of .93 for an N of 96. Its M=149.34 on a scale of 40 to 200 and SD=21.9. The scale was designed to study the relation between career maturity and participation in career education programs. Construct validity hypotheses can be tested by examining selected correlations of the scale and other variables such as cadre age, income, achievement, etc.

Cadre and District Questionnaire

Other measures were developed from logically related items in the Cadre and district questionnaires on pages vii-xii of the original materials. The title of the measure, its item content, its mean, and its alpha coefficient are described below. The measures are experimental and conclusions based upon them should be regarded as suggestion.

Number of District personnel aware of workshop. This was a nine item list on which cadre checked whether persons in particular positions within their district knew of their team's participation in the workshop. Positions included superintendent, school board, student leaders, etc. The mean and standard deviations are 3.14 and 1.29 respectively. The alpha coefficient for an N of 72 was .37.

Number of District inservice incentives. This was a six item list in which cadre checked whether particular incentives such as extra pay, released time, etc. were available to induce teachers to be inserviced by the team. The mean and standard deviations were 1.07 and 1.05 respectively. The alpha coefficient for an N of 76 was .40. This indicates that several of the incentives were generally not available to any cadre. Among the nonavailable incentives were extra pay, pay credits, and compensatory time.

Active memberships. This was a seven item list on which cadre checked whether they belonged to groups such as political party, social group, volunteer group. Data on means, modes, and variances are not yet available.

Non educational leadership roles. This was a seven item list on which cadre checked whether they exercised leadership in the military, community, in a union, or a professional group. Data on means, modes, and variances were not available at the point of writing this report.

Career education activities personally done. This was a six item list on which cadre checked whether they had personnaly done particular career education activities such as have classroom speakers and supervise work experience. The M=2.86; the SD=1.91. Most cadre had themselves done at least one career education activity. The alpha coefficient for an N of 111 was .71. This indicates that each of the six items elicited similar responses from a cadre. Those who had done some did a lot. Others did only one or two. The least frequent activity was supervision of work experience.

District support of career education. This consisted of a nine item scale in which cadre rated from high to low the amount of support which they anticipated from each of nine different groups in their district. The M=55.6; SD=10.40 in a possible range of 10-90. The alpha for an N of 76 was .67. Surprisingly, academic teachers were perceived as least supportive.

Team Rating

The Los Angeles workshop showed that teams differed greatly in terms of organization and enthusiasm for the planning task. Consequently, the senior author, in conjunction with staff, defined five dimensions on which each cadre team might be rated. Then they delineated the categories of high, medium, and low for each dimension. The five dimensions are: focus on working on inservice in their district, amount of time together in planning, confusion in working together, extent to which planning is systematic, and planning to continue as a team. Our staff discussed the dimensions and possible examples of high, medium, and low ratings. Then they rated Los Angeles cadre teams retrospectively and were instructed to observe teams at subsequent workshops in terms of the five dimensions. Fig. 2 contains the form constructed for the rating.

Since the nature of planning teams is being explored in this phase of the project, our interest is in team cohesiveness. Consequently the average of each staff's rating of a team was taken as the best estimate of that team's actual rating. The average rating on each dimension was summed to represent the best estimate of the team's cohesiveness. Staff who did not have opportunity to observe a team did not rate that team. The internal consistency of these ratings is .58. Further efforts will be undertaken to refine these ratings if the project is continued. Team cohesiveness was discovered to be an important outcome of the project and should be a deliberate goal of future projects of this type.

Delivery of Workshops

The staff began rehearsal for the workshop in January 1977. The theory, planning, and career awareness modules were delivered to a UCLA graduate class by three staff. The videotapes were reviewed to suggest improvements in content and delivery. The senior author delivered the self-concept module to an extension class at California State University, Northridge, and made corrections indicated by the delivery. The workshop planning module was delivered to teachers in Newport Beach by staff and corrections made on the basis of that presentation. The community resource module is essentially the one delivered in last year's pilot study. Consequently, it was not rehearsed. All test items were tried and evaluated by Beverly Hills teachers under the direction of staff. Revisions were made before final printing of test items. Rehearsal of the workshop, therefore, involved trial of seven modules on different occasions and trial of test items.

The first workshop of the current project occurred at the Los Angeles County Schools facility in Downey, California (a suburb of Los Angeles) through the courtesy of Dr. David Taxis and Mr. Walter Gembica.

Figure 3 presents the agenda of the Los Angeles workshop and the agenda of subsequent workshops. The materials of the accompanying report were distributed at the start of each workshop. At every workshop

Figure 2

TEAM RATING

Rate teams on the following questions:

A. Focus on working on inservice in their district
B. Amount of time together in planning (get name of leader)
C. Confusion in working together
D. Extent to which planning is systematic
E. Planning to continue as a team

	District	A	B	C	D	E	Name of leader
Cadre 1:							
Cadre 2:							
Cadre 3:							
Cadre 4:							
Cadre 5:							
Cadre 6:							
Cadre 7:							
Cadre 8:							
Cadre 9:							
Cadre 10:							

Site ______________________

Day # ______________________

Figure 3: Project Cadre Workshop Delivery Schedule by Topic

Site: Los Angeles County Education Center
930 Imperial Highway, Downey, Calif. 90242

	Morning (9 a.m.-noon)	Afternoon (1 p.m.-4 p.m.)
Tuesday Feb. 22	Self-Awareness	Program Development
Wednesday Feb. 23	Planning & Dec. Making	Career Awareness
Thursday Feb. 24	Community Support	Theory
Friday Feb. 25	Evaluation	Staff Development

Design and Delivery Schedule for Cadre Training Workshop

Wisconsin, Illinois, New Jersey

	Morning	Afternoon
Day 1	Registration Pretest, Measures Overview Module Deliver: "Self-Awareness..." Progress Test* Consultation/Review Team Planning Session	Module Delivery: "A...Model...Program Planning"
Day 2	Module Delivery: "Planning & Decision-Making"	Module Deliver: "Career Awareness"
Day 3	Community Resource Panel: Collaboration vs. Cooperation"	Module Delivery: "Theory of Career Development"
Day 4	Module Delivery: "Evaluation" Posttest, Measures of Satisfaction, Expectation	Module Delivery "Coaching..." Team Presentation of Plans

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*Follows delivery of training module at each session.

the cadre were encouraged to read modules before their delivery and to meet with their teams after modules in order to relate module content to the emerging district career education inservice plan. At every workshop cadre also were given the option of attending a session or meeting with their team for planning purposes. The presentations followed closely the modules in the accompanying report.

The training program was scheduled as a four-day workshop, such that each of eight training modules would be delivered during a half-day, three-hour session. Participants would receive 24 hours of training.

A pretest-posttest formative evaluation workshop design, including achievement tests of participant progress, was used. Each of the eight half-day sessions was designed to include the following activities: delivery of the scheduled training module, the completion of a progress test of the module's effectiveness, a review of the module and of the performance on the progress test, and a team planning session. Participants completed a pretest and three additional measures following registration on the morning of the first day. They completed a posttest, a satisfaction scale, and an expectation scale following the training session on the morning of the fourth day. They also completed rating sheets for each module immediately after the module's delivery.

Prior to module delivery on day one, the project manager delivered an overview of the project and the workshop. Teams were advised that they would be asked to describe their career education implementation plans on the afternoon of the fourth day.

The use of formative evaluation procedures was scheduled so that the training program could be improved during the course of its development. As expected, between the delivery of the first and second workshops the staff made important changes in the design. Other appropriate changes were discovered between the deliveries of workshops two, three, and four. A narrative of the change process follows.

First workshop. As expected, the Los Angeles workshop proved more problematic than would the others and, consistent with formative evaluation procedures, a number of resultant changes were made before the second workshop. First, the delivery schedule was revised, such that the theory module was delivered on the morning of day one, self-awareness was moved to the morning of day two, and career awareness was moved to the afternoon of day three. The staff's assumption that the participants would be sufficiently trained in career development concepts and the logic underlying career education to render the basic rationale and supports for career education more meaningful as a wrap-up than as an introduction proved incorrect. Table 3 indicates that 42% of the cadre had no formal training in career education. The Los Angeles workshop indicated that many cadre lacked an understanding about career development and about career education infusion. The discovery warranted the placement of the theory module at the head of the training schedule.

Second, the progress tests of participants' achievement intended to assess the effectiveness of the modules and their delivery were dropped from the workshop schedule. The tests required a technical mastery of the modules not expected by the close of the module delivery. Many items were completion and essay, requiring up to ten minutes per item. The data collection part of the workshop became unmanageably long and irksome to the participants. Moreover, the delivery of the modules tended to take longer than scheduled. Progress testing was, therefore, interfering with team meetings. Consequently, the use of the particular progress tests to monitor achievement and to facilitate a competency-based workshop format proved untenable and not reconcilable with the training timeline. The resulting revision meant the staff could not monitor the degree of concept learning during the course of workshop delivery. The module evaluation form in Appendix G was substituted in order to obtain the cadre's ongoing reactions to the modules.

Third, time allotted to the project manager's opening overview of the project's purpose and procedures was tripled form 10 minutes to 30 minutes. The participating teams and individuals are supposed to play multiple roles throughout the four days of training and to see themselves as a real team of leaders-planners-trainers in the local district. The orientation becomes complicated and possibly confusing, depending in part on the preworkshop coordination and orientation. If it is fragmented and poorly communicated, role conflict and confusion can be disastrous. A slow, comprehensive overview at the opening of the workshop, characterized by careful delineation of role definitions and project expectations, is the surest remedy for any confusion or misapprehension. The participants need to be provided a perspective as to what the project is, who they are, and what is expected of them, both during the workshop and afterwards.

Fourth, data collection procedures were revised, so that all measures would be collected at a designated time and by a designated procedure. The initial data collection procedures, which permitted participants to complete questionnaires and return them at self-selected times throughout the four days, proved unreliable. Many questionnaires were not submitted at the Los Angeles workshop. Some pretests and posttests were not completed. A strict schedule of data collection and the announcement of same remedied the situation in the other workshops.

Fifth, the afternoon of the fourth day was scheduled entirely as a forum in which participating teams were expected to describe the implementation plan they developed during the workshop. Guest speakers were to be accommodated on other days. Los Angeles indicated the workshop needed a design feature to help the teams see themselves as a real team and to coalesce in a practical way that would be predictable, not only of effective planning during the workshop, but of successful implementation following the workshop. By asking the teams to describe their plan the workshop held the teams accountable for planning during the owrkshop and facilitated the teams' preparing a plan which could be implemented following the workshop.

Second workshop. One month later the workshop was delivered again in Wisconsin from March 22-25. The delivery team consisted now of four staff (Healy, Quinn, Elster, and D'Elia), and the new delivery procedures were implemented. This workshop led to only one important change. Prior to their delivery of implementation plans on the afternoon of the fourth day, the teams were allotted a 40-minute planning session during which they were asked to write down their plan in accordance with five basic questions: are you a real team, where is the district in relation to career education infusion, where is the team in its planning for the inservicing of district teachers, what are the specific next steps following the workshops, and is the team satisfied with its progress? Also, during the Milwaukee workshop the evaluation module was delivered by a different staff member.

Third workshop. The next workshop was delivered the following week in Illinois from March 28-31. The Wisconsin workshop was repeated, except that staff members alternated delivering the community resource module and the career awareness module.

Fourth workshop. The final workshop was delivered in New Jersey from April 12-15. The Wisconsin-Illinois workshops were replicated. The delivery team consisted of Healy, Quinn, and Elster.

The workshops in Wisconsin, Illinois, and New Jersy were delivered as intended. A tone and mood of collaboration and participation was established during each by a number of procedures: staff defined their role as facilitators and collaborators, de-emphasizing the training function; each staff member met with the various planning teams in a consultative manner at least twice during each workshop; an information desk was set up for questions and for materials display at each workshop; staff members went to lunch with a different team each day; and trainers consistently referred to the post-workshop consultation role of the project team. Cadre at these workshops, unlike the majority at Los Angeles, stayed through 4 p.m. to work on their team activities and plans.

The appropriateness of a continuous, collaborative relationship between the project offices and the planning teams was repeated throughout the four days, and teams were reminded the project would return for a one-day troubleshooting session approximately 60 days following the workshop.

Workshop follow-up. Approximately 60 days following the delivery of the Wisconsin and Illinois workshops a follow-up was conducted in Wisconsin and Illinois. Teams in Los Angeles and New Jersey were contacted by telephone. The purpose was to monitor the implementation of theplans developed by the workshop teams and to provide consultations to teams experiencing implementation problems (troubleshooting).

Prior to the conduct of the follow-up, a questionnaire was constructed to provide information about three areas of inquiry: the extent to which the cadre had become a team, the extent to which each had implemented the workshop plan as it was intended to be implemented, and the extent to which participants had identified other reactions to the workshop. A second follow-up measure was a checklist which listed the implementation steps each team had intended to take at the close of the four day workshop. The checklist was completed by a staff member who listened to each team's progress report. A third was a series of open-ended questions which constituted a progress report of the team's post-workshop planning and training activities. A further step was taken to find out why uncompleted steps of the plan could not be carried out. The borad purposes were to identify factors contributing to success and lack of success during implementation and to help cadre plan for more effective implementation. These forms appear in Appendix H.

One-day follow-up sessions in Wisconsin and Illinois were held on May 25-26. All the workshop teams were represented at the sessions. Each session included a 40-minute interval for teams or their representatives to complete a written progress report on project forms. The reports were collected. At each follow-up, the teams delivered their progress report to the total group. With a single exception, each team reported progress in team-building and in planning for teacher inservice. One Wisconsin team had disintegrated, at least temporarily, and asked not to explain the district situation the team had confronted.

The clear [illegible] tone of the progress reports was optimistic, positive, and confident. The reports were not problematic as had been expected. Some teams had already formed joint ventures for career education planning and training with other district committees or offices. Others had added new team members, including district level administrators. Many meetings had been held, plans had been extended. The problem of the timelines did not appear critical or defeating. Many teams asked for additional copies of cadre materials and suggested the team would like to be involved in any continuing relationship the project could offer. The cadre workshop was seen as related to the ongoing planning and team-building activity taking place, particularly as a mechanism for team-building and for beginning the planning process. More specific descriptions of the Wisconsin-Illinois post-workshop planning and training activities can be found in the results section.

The follow-up in Los Angeles was conducted using different procedures. Teams were invited to spend a half-day progess and troubleshooting session at project offices (UCLA Extension Building) at their discretion. Only one team, Pasadena, responded. The Pasadena team had elaborated an extensive four-part implementation plan involving all administrators, departments, and teachers in the district, and asked the project staff to meet and confer with them in the district on the content and implementation of the plan. The relationship with Pasadena has become strong and continuing. The project does not anticipate working with other Los Angeles teams unless the project's continuation proposal is funded.

New Jersey and the non-responding Los Angeles teams were contacted by telephone in June, 1977 and asked the questions in the telephone interview form in Appendix I.

Cadre Characteristics

There were 143 cadre who attended one or more days of the four-day workshop. Table 2 presents important characteristics of these educators totally, including exposure to training in career education and experience in leading inservice.

Cadre Teams

Full teams from 24 districts and observers from eight others participated in the workshop. Table 3 lists the teams, the cadre, and the current occupations of the members. Inspection of Table 3 indicates that 16 teams or 66% of the total had the recommended membership of: (1) district officer/superintendent or principal; (2) vice principal, coordinator or counselor; and (3) teacher. Table 2 shows the characteristics of students served by the districts. Most cadre were from small to medium-sized districts and the majority served districts with small minority enrollment. Otherwise, students served by cadre look typical of American students.

Community Presenters

For each workshop, participating districts recruited business/community leaders to participate on the panel of the community resource module. Orientation materials for panelists are included in the Community Resource Module of Appendix K. The panelists ranged from directors of personnel and heads of small businesses through union vice presidents and veterinarians. Even though the panels differed from region to region, the cadre reactions to the panelists reported in Chapter 4 indicates satisfaction in every region.

Evaluation

Ongoing and formative best describe our approach to evaluation. More specifically, evaluation focused on assessing whether the project had a rationale and was following it, whether there was a viable time line which was being followed and was furthering the project's purpose, whether delivery of the workshop was proceeding as intended, and whether desired learning was occurring.

Table 1

SELECTED CHARACTERISTICS OF CADRE

Cadre

Sex:

M(65.5%) F(34.5%)

Age:

under 35(43.8%); 36-45(30.4%); 46-55(20.5%); 56+(5.4%)

Years as an educator:

0-5(12.5%); 6-10(25.9%); 11-15(25.9%); 16+(38.4%)

Salary:

under $10,000(2.7%); $10-14,900(24.1%); $15-19,900(38.4%); $20,000+(33.9%)

Years of full-time employment outside of education:

none(18.0%); 0-1(23.4%); 1-3(30.6%); 4-7(10.8%); 8+(17.1%)

Years of residing in present community:

0-3(25%); 4-6(16.1%); 6-10(15.2%); 10+(43.8%)

College/university courses which you have completed in career ed.

0(42.2%); 1(18.3%); 2(11.9%); 3(10.1%); 4+(17.4%)

Number of other inservice workshops in career education which you have attended:

0(27.1%); 1(28.0%); 2(12.1%); 3(6.5%); 4+(26.2%)

Number of inservice workshops (not only career education) which you have led:

0(38.1%); 1-3(35.2%); 4-10(11.4%); 10+(12.4%)

Table 2

CHARACTERISTICS OF CADRE DISTRICTS

The priority of career education:

the top(05%) high(51%) medium(38%) low(5%)

Personnel in leadership roles (principals, superintendents) retain their positions:

0-1 years(3%) 2-4 years(15%) 5-7 years(27%) 8+ years(55%)

The percentage of students graduating from schools:

less than 50%(1%) 51-60%(7%) 61-80%(12%) 80%(79%)

The median income of families:

under $10,000(6%) $11-15,000(49%) $16-20,000(34%) $21,000+(10%)

The proportion of minority youngsters in the district:

10% or less(67%); 11-25%(10%); 26-50%(12%);
50-75%(8%); 76+%(4%)

Number of district high schools:

1(42%) 2-4(33%) 5-10(21%) 10+(4%)

The typical student enters full-time work after year of schooling:

11 or less(3%); 12(42%); 13(9%); 14(28%); 15+(17%)

District schools draw students primarily from:

suburban area(79%); industrial/business area(5%);
rural(10%); light business/industry(2%); inner city(4%)

The district yearly expenditure per high school pupil approx.:

$1,000 or less(11%); $1,100-1,199(16%);
$1,200-1,399(13%); $1,400-1,599(18%); $1,600+(41%)

Table 3.

THE CADRE: THEIR TEAMS AND OCCUPATIONS

State: California
Region: Los Angeles County

Cadre 1: Bassett
Douglas Armstrong, Dir. of Curriculum
Ed Eillis, Dir. of Voc. Ed.
Larry Brown, Career Counselor
Robert Westhafer, Teacher
T. R. Winkels, Teacher

Cadre 2: Inglewood
Walter R. Cruz, Dir. of Voc. Ed.
Cheryle Beverly, Career Ed. Coordinator
Donna Gleed, Career Technician

Cadre 3: Long Beach
Mary McAuliffe, Teacher
Lewis A. Prillima, Teacher
Ivan Schuler, Teacher

Cadre 4: Los Angeles U.S.D.
John Connell, Jr., Career Advisor
Ola A. Griffith, Career Advisor
Clarence Jackson, Career Advisor
Pat Rowley, Career Advisor
Hank Toring, Career Advisor
Sally Gibson, County ROP Career Couns.

Cadre 5: Montebello
Gerald Crowley, Teacher
Gloria Denison, Teacher/Midia Spec.
R. L. Elmange, Librarian/Media
Maria Elena Jimenez, Counselor
Art Ruiz, Teacher
Henry Twu, Media Specialist

Cadre 6: Norwalk-La Mirada
Betty Houts, Dir., Career Ed.
Sherrill Fitzpatrick, Counselor
Robert R. LeGrue, Counselor
Rosemarie Whitworth, Counselor
Nancy Welborn, Counselor
Beverly Gower, Teacher
Gail Sunshine, Teacher

Cadre 7: Pasadena
John E. Waller, Dir., Career/Voc. Ed.
Frances L. Whiten, Work Exp. Couns.
Robert Zondler, Work Exp. Counselor
Richard Fryon, Counselor
Donald Proctor, Counselor
Phyllis Tooker, Counselor
Richard M. Jones, Teacher

Cadre 8: Pioneer-Whittier Union
John Kimmick, Assistant Principal
Darlene Staib, Career Center Dir.
Richard MacDonald, Soc. Sci. Dept. Chair.
Paul Montes, Counselor
Bonnie Jo Panagos, Teacher

Cadre 9: Pomona/Claremont/Bonita
Les Stahler, Career Ed. Coord., Bonita
Gayle Ginsburg, Car. Tech., Claremont
JoAnn Sorrensen, Car. Guid. Teach., Claremont
Ellen Lapp, Counselor, Pomona

Others in Los Angeles
Loretta Morgan, Career Guidance Specialist, Alhambra
John Chadwick, Career Counselor, ABC
Eloise Archibald, Career Counselor, Compton
Henry Loger, Vocational Counselor, Compton
Nancy Lombardi, Teacher, El Segundo
Sam Calaritta, Career Advisor, El Segundo
Audrey Smith, Graduate student invited by Mr. Gembica
Simmie Coffey, Teacher, Lynwood

State: Wisconsin
Region: West Milwaukee

Cadre 1: Waukesha
Ryan Champeau, Vice Principal
Joe Chabela, Guidance Director
Ralph Kinney, Vocational Coordinator
Carmen Periquet, Bilingual Learning Spec.
Dick Johnson, Career Ed. Learning Spec.
Glenn Lehman, Instructor
Roger Redetzke, Instructor

Cadre 2: Shorewood
Neil Winebrenner, Ass't. Supt. of Instr.
Dave Biddick, Science Chairperson
Kathleen Bowing, H.S. Counselor
Dan Hummel, Int. Sch. Counselor

Cadre 3: Brown Deer
Don Amundson, Vocational Coordinator
Carolyn Adams, H.S. Counselor
Ken Klein, H.S. Teacher
Bonnie Seitz, Middle School Teacher

Cadre 4: Greenfield
Karen Beckers, Curriculum Coordinator
John Hidstion, 7-12 Coordinator
Warren Rebholz, Counselor
Donald Billili, Counselor

Cadre 5: Mequon
Carl Fahrenkrug, Principal
Dennis Krus, Principal
Marie McFarlane, Career Coordinator

Cadre 6: Allis-W. Milwaukee
Duane Stowell, Principal
Robert Buehler, Special Education

State: Illinois
Region: Northwest Chicago

Cadre 1: Lyons Township
R. J. Neuneker, Voc. Coordinator
Ann Beran Jones, Car. Ed. Coord. (K-8)
Dorothy Blackledge, Counselor
William Dawson, Teacher
Rose Fremer, Teacher
Al Larson, Teacher

Cadre 2: 214
Norm Repplinger, Assist. Superintendent
Howard Sandlund, Assistant Principal
Jim Whittington, Community Resc. Coord.
Shirley Aberg, E.V.E. Coordinator
Mary Nellis, Office Ed. Coord.
Bill Duncker, M/S Division Chairman
Allan Dorn, Career Counselor
Robert Falardeau, Teacher

Cadre 3: 211
Don Howard, District Voc. Coord.
Gary Anderson, Dept. Chm., English
John Waters, Dept. Chm., Bus. Ed.
Barbara Barry, Coor. of Guidance
Eve Bresnik, Career Ed. Coord.
Nancy Johnson, Teacher
Joe Keenan, Teacher
Chuck Milem, Teacher

Cadre 4: 88
V. A. Jones, Ass't. Superintendent
Robert East, Dir., Student Personnel
Dean Wunder, Voc. Counselor
Gail Popowitz, Learning Center Coord.
D. Robert O'Loughlin, Counselor
John Yakel, Teacher

Cadre 5: 12
William Hayes, H.S. Principal
Scott Seaborn, Elem. Principal
Roger Kriewaldt, Teacher
Patricia Bingman, Teacher
Randy Swikle, Teacher
Paul Gualdoni, Teacher

State: New Jersey
Region: Newark

Cadre 1: Hamilton Township
Dr. Ben Pironti, Administrative Ass't, H.S.
Barbara Clark, Middle School Guidance Counselor
Richard Eckstein, Teacher
Dolores Pannick, Teacher
Elaine Stucklin, Teacher

Cadre 2: Matawan
Albert Levine, Bus. Ed. Supervisor
Patrick Maggio, Career Ed. Supervisor
Audrey Sacher, Guidance Counselor
Carol Shafer, Guidance Counselor
Peter Triolo, Guidance Counselor

Cadre 3: Montclair
Raymond Hugg, Dir. of Career Education
Betty Jones, Guidance Intern
Paul Kock, Career Counselor
Herman Lewis, Career Counselor
Arnold Schwartz, Career Counselor
Brenda Williams, Guidance Counselor

Cadre 4: South Brunswick H.S.
Jean Dorgan, Director, Occupational Experience
Ralph Jones, Teacher/Counselor
Millie Grey, Counselor
Theresa Farinella, Teacher

Cadre 5: Wayne
Adrian Van Zweden, Project Director, Wayne Career Ed. Program
Elaine Douma, Preparation Phase Coord., Wayne Career Ed. Program
Pat Ratta, Awareness/Exploration Phase Coord., Wayne Career Ed. Program
Joseph Graceffo, Industrial Arts Dept. Head
Elaine D'Amico, Teacher
Ralph D'Amico, Teacher
Ingeborg Johnston, Teacher

Following a Rationale

Periodic meetings of the staff or author with the external evaluator kept the project on course. Topics and resolutions of such meetings included:

1. Defining the target of the project. Resolved: cadre to do inservice in career education is target.

2. Assessing cadre achievement of objectives. Resolved: cadre achievement of objectives judged by growth in cognitive knowledge of career education; feeling able to deliver instruction on five key aspects of career education, namely, an organizational framework, self-awareness, career awareness, planning and decision-making, and community involvement; construction of a plan for doing career education inservice within district, and actual conduct of inservice.

3. Recruiting cadre who can do inservice. Resolved: Contact state directors of career education for site coordinator nominees and ask these nominees to in turn suggest interested districts. Invite districts who are interested and will send teams of four to eight so that there are up to 35 cadre for each site.

4. A planning format to assure viable plans. Resolved: Based upon deliberation, Dr. Quinn will construct a planning form to be used by cadre. Staff and evaluator will react and suggest revisions. Final form meets needs in providing outline of necessary elements (an instructional reminder) and space for detailing steps (functional).

5. A method of obtaining cadre feedback to individual modules in view of the difficulties encountered with program test. Resolved: Evaluation form in Appendix G be developed for soliciting reactions.

6. Information on the impact of workshop on cadre teams not attending follow-up. Resolved: Cadre team leaders or other members will be contacted by telephone and the questions in Appendix I asked.

Timeline

The timeline in Figure 4 was generally followed. Funding at only 80% of the requested authorization and late notification of the funding of the project forced deletion of use of a delphi procedure to agree on workshop content (step 7) and of formal follow-up of the 1975-76 cadre (step 3). Informal contacts, however, suggested that the cadre from Hawaii were awaiting funding to do inservice, that several cadre from Nevada had followed through and that little follow-through had been possible by Los Angeles county cadre. In addition, failure to obtain

Figure 4

PROJECT TIME LINE

	Activity	Completion Date
1.	Hire staff and assign responsibilities	August, 1976
2.	Identify successful infusion methods/materials--methods of staff development	October 31, 1976
3.	Evaluate successes/problems of cadre trained in 1976 Region IX project	November, 1976
4.	Consider possible refinements of workshop modules with Advisory Committee. Refinements are suggested by survey of best practices and follow-up evaluation.	December, 1976
5.	Submit 6-month progress report	February 28, 1977
6.	Preregister cadre for the four workshops	February 28, 1977
7.	Use delphi process to prioritize modules in the two workshops	March 31, 1977
8.	Have all refined materials for teacher workshop printed and have draft cadre modules printed. One hundred extra copies will be obtained to honor mail requests.	March 31, 1977
9.	Conduct inservice workshops for cadre	May 31, 1977
10.	Evaluate the outcomes of cadre workshop	June 30, 1977
11.	Make final refinements in cadre training modules	June 30, 1977
12.	Review evaluations of workshops and refinements of modules with Advisory Committee	July 15, 1977
13.	Complete/submit final report to USOE and ERIC	July 30, 1977

funding for the project past June precluded convening the advisory committee and actually rewriting modules in the summer of 1977.

Data Analyses

This section describes the data analyses which were performed on the instruments described above for this phase of the project. The results appear in Chapter 4.

The question of whether an economically feasible, transportable inservice instructional program in career education could be developed and delivered effectively within the year was tested by examining whether the proposed 100-120 cadre could be recruited to attend during working hours, whether instruction could be developed and delivered in essentially the same manner to different educators in different locales, and whether participants were satisfied with their experience and graduated expecting to do inservice. This test involved verifying the existence of the instructional package in Appendix K and tallying cadre responses to pertinent questions about the materials.

To test whether the project was benefiting cadre, analysis examined: (1) whether cadre actually became career education inservice development teams as indicated by their own reports and staff ratings; (2) whether they initiated plans for inservicing teachers, by counting the plans produced, and whether they reported they met subsequent to the workshop to continue planning and begin implementation; (3) whether cadre increased their understanding of the material presented in the workshop, by "t" test of correlated means; and (4) whether educators believed they would be able, in turn, to share their new appreciation with teachers in their district, by a frequency count of their expectation scale scores.

To provide information for upgrading instructional materials and methods, cadre rated their satisfaction with the elements of each module immediately after delivery of the module. These ratings also elicited cadre commentary on each module. Analysis consisted in tallying the response to each module and summarizing the comments. In addition, each staff member present at a workshop commented on the content and delivery of each module. These comments were reviewed by the senior author in preparation of a project summary/recommendation for each module. The senior author's commentary appears in Chapter 4, and stafff coments appar in Appendix J.

To provide information for improving selection of cadre and to determine whether certain districts benefit more than others, the following hypotheses were examined:

1. Cadre from teams comprised of the personnel recommended will have more suitable backgrounds to be inservice trainers in career education.

2. Satisfaction with the workshop relates to: growth in knowledge, number of inservices led, career maturity, number of leadership positions, number of career education activities actually performed, number of courses in career education, home district's knowledge of the workshop,

home district's commitment, district incentives, and perceived incentives. This hypothesis was tested through regression analysis.

3. Expectation of being able to deliver the workshop relates to the same variables. Again, regression analysis was used to evaluate this hypothesis.

4. Growth in cognitive knowledge will relate to the same characteristics. Regression analysis was the method of analysis for this hypothesis also.

CH:12

Chapter 4

Results

This chapter presents the data collected from July 1976 to June 1977. Data are organized in terms of the five broad questions addressed by the project. There is some overlap because the same data are sometimes relevant to more than one question.

Economically Feasible, Transportable Inservice Program

The first important question to answer about the project is whether a training vehicle was produced which was judged appropriate for developing inservice training teams in career education and which could be administered in a replicable manner that was satisfactory to participants. Several facts support an affirmative answer to the question. They are listed below.

Material Demonstration

The proposal called for tryout of the package with 100 to 120 educators from four different regions of the U.S. In actuality, a total of 143 educators from four different states participated, and more than 80% attended the full four days. The workshop occurred during working hours, and the local districts were able and willing to absorb the approximately $60,000 cost of their personal attending the training. (Cost estimates include educator salary, travel and meal expenses.)

Transportability

The proposal promised development of methods and materials which are sufficiently explicit to be used in similar training efforts. Examination of the accompanying set of materials (Appendix K) will show that they contain clear descriptions of concepts and exercises along with concrete specifications of the actions to take in teaching the concepts and directing the exercises. The methods chapter of this report has already delineated the procedures which were taken to recruit, arrange, and evaluate the project. In the course of instruction, three of the seven modules (career awareness, community pane., and evaluation) were delivered in essentially similar ways by different staff members, and the decision-making module was delivered by a presenter other than its author. These three characteristics of the materials and their delivery are the basis of the claim that the project is transportable.

Satisfaction with Cadre Project

Reactions to the educational materials and instruction in them were favorable. Immediately after instruction, cadre in the last three workshops rated each module on four characteristics on a 5-point scale of 1 = low, 3 = moderate, and 5 = high. The ratings were summed so that 6 = low, 18 = moderate, and 30 = high. The results of the ratings are presented here.

First, cadre felt moderately sure about their ability to deliver the modules. For the 74 cadre responding to this question for each of the six modules rated, the mean (M) = 22.7; the mode = 24.0, and the standard deviation (SD) = 3.10. They believed that the written materials would contribute to their instruction. The M = 22.0; the mode = 19.0. and the SD = 3.60. Similarly, they felt that their teachers would benefit from exposure to such instruction. The M = 21.6; mode = 22.0; and the SD = 3.20. In regard staff presentation of the modules, their ratings were also moderately supportive. M = 22.58; mode = 22; and SD = 2.96. The ratings for each module at each site are presented below under the heading of Improvements.

Cadre were also satisfied with the total workshop experience as reflected by the fact that the modal response to whether the workshop accomplished seventeen objectives was "agree." The means and standard deviations for each item of the 17 items of the satisfaction scale are reported in Table 4. The satisfaction ratings for the total cadre and for cadre at each workshop site are presented because chi square comparisons of cadre's responses to the 17 items at each site indicated that the Los Angeles group was less positive than other groups in feeling that the workshop followed a logical pattern, stimulated their thinking, and presented material that was not overly advanced. Indeed, because Los Angeles was the first workshop, its organization needed improvement; and because few of the cadre were in teams constituted as recommended, the workshop content tended to be advanced. Moreover, the fragmentary nature of the Los Angeles teams did not hold the cadre together for owrk in career education after the afternoon module presentation. This certainly decreased their thinking about the material.

Impact of Participation

A second major question is whether the project's organization and its training methods and materials benefit cardre or can be adjusted in order to benefit them. Four facts suggest the project produced benefit: the development and continuation of district teams, the creation and implementation of plans for inservice in career education, the increase in understanding of career education theory and concepts, and the expectation of cadre for inservicing teachers in career education concepts promulgated by the workshop.

Table 4

PERCENT DISTRIBUTION OF RESPONSES ON WORKSHOP SATISFACTION SCALE--OVERALL

	SATISFACTION SCALE ITEMS	% RESPONDING 5 Strongly Agree	4 Agree	3 Un-decided	2 Dis-agree	1 Strongly Disagree
1.	The speakers really knew their subject.	43.8	48.2	8.0	0	0
2.	The purposes of this workshop were clear to me.	32.4	54.1	4.5	7.2	1.8
3.	New acquaintances were made which will help in my future work.	35.7	40.2	17.9	5.4	0.9
4.	The sessions followed a logical pattern.	24.3	45.9	21.6	7.2	0.9
5.	The objectives of this workshop were realistic.	12.7	48.2	9.1	25.5	4.5
6.	We worked together as a group.	38.2	49.1	6.4	6.4	0
7.	The program met my expectations.	15.2	49.1	26.8	6.3	2.7
8.	I had an opportunity to express my ideas.	50.5	46.8	0.9	1.8	0
9.	There was enough time for informal conversation.	19.6	55.4	3.6	19.6	1.8
10.	I was stimulated to think objectively about the topics presented.	21.8	63.6	10.0	2.7	1.8
11.	The materials distributed to participants were appropriate.	32.1	54.5	9.8	2.7	0.9
12.	Possible solutions to my problems were considered.	9.9	59.4	22.8	7.9	0
13.	I have a guide for future action.	31.7	57.4	8.9	2.0	0
14.	We related theory to practice.	15.0	60.0	12.0	9.0	4.0
15.	The information presented was not too advanced.	23.0	46.0	19.0	10.0	2.0
16.	The information presented was not too elementary.	30.7	51.5	9.9	5.9	2.0
17.	The material presented was valuable to me.	36.6	46.5	11.9	4.0	1.0

Note: Items 5, 8, 9, 11, 13, 14, 15, 16 were phrased negatively to break a possible response set. They were altered in analysis to permit summing a score over 17 items and for clarity.

Table 4a

PERCENT DISTRIBUTION OF RESPONSES ON WORKSHOP SATISFACTION SCALE, LOS ANGELES

		% RESPONDING				
	SATISFACTION SCALE ITEMS	5 Strongly Agree	4 Agree	3 Un-decided	2 Dis-agree	1 Strongly Disagree
1.	The speakers really knew their subject.	25.8	58.1	16.1	0	0
2.	The purposes of this workshop were clear to me.	22.6	51.6	9.7	9.7	6.5
3.	New acquaintances were made which will help in my future work.	25.8	48.4	12.9	9.7	3.2
4.	The sessions followed a logical pattern.	20.0	23.3	46.7	10.0	0
5.	The objectives of this workshop were not realistic.	10.0	36.7	10.0	36.7	6.7
6.	We worked together as a group.	36.7	36.7	16.7	10.0	0
7.	The program met my expectations.	3.2	35.5	41.9	16.1	3.2
8.	I did have an opportunity to express my ideas.	45.2	48.4	3.2	3.2	0
9.	Tnere was time for informal conversation.	19.4	51.6	0	22.6	6.5
10.	I was stimulated to think objectively about the topics presented.	19.4	58.1	19.4	3.2	0-
11.	The materials distributed to participants were appropriate.	32.3	51.6	12.9	0	3.2
12.	Possible solutions to my problems were considered.	7.1	57.1	35.7	0	0
13.	I have a guide for future action.	25.0	60.7	10.7	3.6	0
14.	We did relate theory to practice.	7.4	51.9	18.5	14.8	7.4
15.	The information presented was not too advanced.	7.4	33.3	40.7	18.5	0
16.	The information presented was not too elementary.	28.6	39.3	25.0	3.6	3.6
17.	The material presented was valuable to me.	25.0	57.1	17.9	0	0

Table 4b

PERCENT DISTRIBUTION OF RESPONSES ON WORKSHOP SATISFACTION SCALE, WISCONSIN

	SATISFACTION SCALE ITEMS	% RESPONDING 5 Strongly Agree	4 Agree	3 Un-decided	2 Dis-agree	1 Strongly Disagree
1.	The speakers really knew their subject.	55.0	45.0	0	0	0
2.	The purposes of this workshop were clear to me.	35.0	60.0	5.0	0	0
3.	New acquaintances were made which will help in my future work.	40.0	40.0	15.0	5.0	0
4.	The sessions followed a logical pattern.	25.0	55.0	10.0	5.0	5.0
5.	The objectives of this workshop were realistic.	25.0	60.0	5.0	10.0	0
6.	We worked together as a group.	40.0	50.0	5.0	5.0	0
7.	The program met my expectations.	25.0	60.0	15.0	0	0
8.	I did have an opportunity to express my ideas.	65.0	35.0	0	0	0
9.	There was time for informal conversation.	25.0	60.0	5.0	10.0	0
10.	I was stimulated to think objectively about the topics presented.	45.0	55.0	0	0	0
11.	The materials distributed to participants were appropriate.	40.0	55.0	5.0	0	0
12.	Possible solutions to my problems were considered.	7.1	71.4	21.4	0	0
13.	I have a guide for future action.	35.7	64.3	0	0	0
14.	We did relate theory to practice.	14.3	71.4	14.3	0	0
15.	The information presented was not too advanced.	28.6	57.1	0	14.3	0
16.	The information presented was not too elementary.	42.9	57.1	0	0	0
17.	The material presented was valuable to me.	50.0	42.9	7.1	0	0

Table 4c

PERCENT DISTRIBUTION OF RESPONSES ON WORKSHOP SATISFACTION SCALE, ILLINOIS

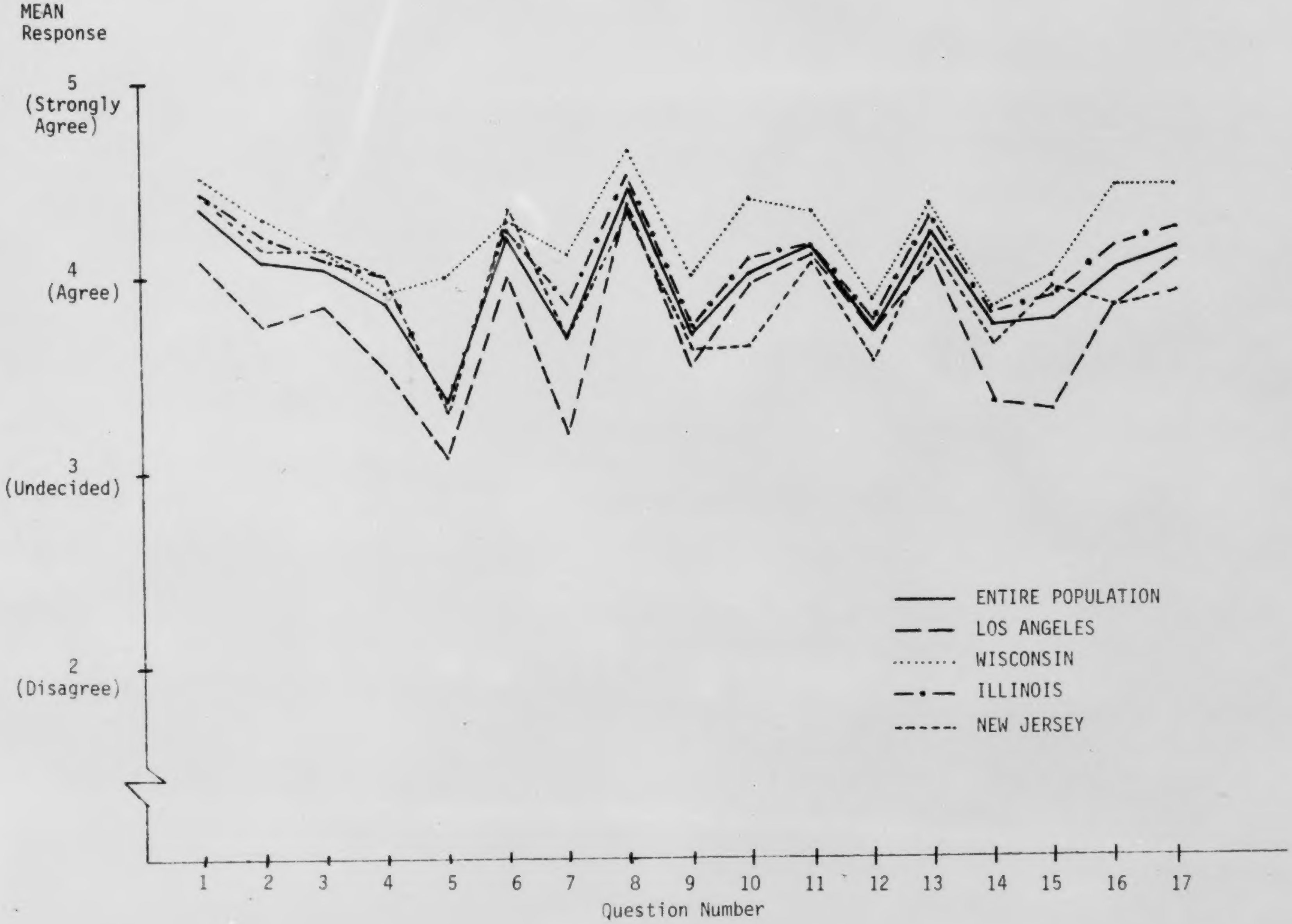
		% RESPONDING				
	SATISFACTION SCALE ITEMS	5 Strongly Agree	4 Agree	3 Un-decided	2 Dis-agree	1 Strongly Disagree
1.	The speakers really knew their subject.	45.7	51.4	2.9	0	0
2.	The purposes of this workshop were clear to me.	38.2	52.9	0	8.8	0
3.	New acquaintances were made which will help in my future work.	34.3	42.9	20.0	2.9	0
4.	The sessions followed a logical pattern.	28.6	51.4	11.4	8.6	0
5.	The objectives of this workshop were realistic.	11.4	48.6	11.4	22.9	5.7
6.	We worked together as a group.	29.4	64.7	2.9	2.9	0
7.	The program met my expectations.	17.1	57.1	0	0	0
8.	I did have an opportunity to express my ideas.	52.9	47.1	0	0	0
9.	There was time for informal conversation.	17.1	60.0	5.7	17.1	0
10.	I was stimulated to think objectively about the topics presented.	20.6	73.5	2.9	0	2.9
11.	The materials distributed to participants were appropriate.	28.6	60.0	8.6	2.9	0
12.	Possible solutions to my problems were considered.	15,2	57.6	18.2	9.1	0
13.	I have a guide for future action.	33.3	60.6	3.0	3.0	0
14.	We did relate theory to practice.	21.2	63.6	9.1	3.0	3.0
15.	The information presented was not too advanced.	30.3	48.5	12.1	3.0	6.1
16.	The information presented was not too elementary.	33.3	57.6	0	9.1	0
17.	The material presented was valuable to me.	42.4	45.5	9.1	3.0	0

Table 4d

PERCENT DISTRIBUTION OF RESPONSES ON WORKSHOP SATISFACTION SCALE, NEW JERSEY

		% RESPONDING				
	SATISFACTION SCALE ITEMS	5 Strongly Agree	4 Agree	3 Un- decided	2 Dis- agree	1 Strongly Disagree
1.	The speakers really knew their subject.	53.8	34.6	11.5	0	0
2.	The purposes of this workshop were clear to me.	34.6	53.8	3.8	7.7	0
3.	New acquaintances were made which will help in my future work.	46.2	26.9	23.1	3.8	0
4.	The sessions followed a logical pattern.	23.1	57.7	15.4	3.8	0
5.	The objectives of this workshop were realistic.	8.0	52.0	8.0	28.0	4.0
6.	We worked together as a group.	50.0	42.3	0	7.7	0
7.	The program met my expectations.	19.2	46.2	23.1	7.7	3.8
8.	I did have an opportunity to express my ideas.	41.7	54.2	0	4.2	0
9.	There was time for informal conversation.	1912	50.0	3.8	26.9	0
10.	I was stimulated to think objectively about the topics presented.	8.0	64.0	16.0	8.0	4.0
11.	The materials distributed to participants were appropriate.	30.8	50.0	11.5	7.7	0
12.	Possible solutions to my problems were considered.	7.7	57.7	15.4	19.2	0
13.	I have a guide for future action.	34.6	46.2	19.2	0	0
14.	We did relate theory to practice.	15.4	57.7	7.7	15.4	3.8
15.	The information presented was not too advanced.	26.9	50.0	15.4	7.7	0
16.	The information presented was not too elementary.	23.1	53.8	11.5	7.7	3.8
17.	The material presented was	34.6	38.5	11.5	11.5	3.8

Figure 5: Graph of Mean Response per Question on Workshop Satisfaction Scale



Development and Continuation of District Teams

An important feature of the cadre approach to training for career education infusion was its collaborative thrust. The collaborative thrust involved creating teams of educators representing various levels of responsibility in the district/school. Each team was to include at least one central office administrator and school administrator to participate in the workshop and it was to develop a local implementation plan for inservicing teachers. The collaborative thrust was intended to provide cadre with important administrative and faculty support during the post-workshop implementation stage. A series of pre-workshop planning and coordination activities, including on-site orientation sessions with prospective cadre, were arranged to recruit and debrief the desired training teams.
Table 3 shows that the majority of teams were constituted as recommended.

During the workshops, teams were allocated up to 11 of the 24 hours to work in relating the content of the modules to their local needs. Planning forms were provided to guide their effort.

Anecdotes during and after the workshop attested to the success of the project in establishing teams. Participants in the three later workshops spontaneously, and without solicitation, noted their pleasure in getting a chance to meet and work with each other, in having the opportunity to think of themselves as a team and to make plans which could keep them together, in being with district personnel who could make a difference, and in being reminded that in numbers there is strength.

During the workshop it was evident to the project staff that the teams were functioning as intended. Collectively the staff rated 66% of the teams as moderately or highly cohesive. This rating was a team's average rating on five ratings by staff. On the five ratings, staff rated 50% of the teams as at least moderately systematic in planning, 72% as at least moderately focused on inservice, and 88% as at least moderately able to work together, 72% as operating with only minimum confusion, and 75% as planning to continue as a team. The teams which excelled had designated leaders who encouraged input of all team members and kept the team moving from phase to phase of the plan.

Regarding the teams themselves, most also felt that they were cohesive groups and intended to continue as teams. In telephonic follow-up to Los Angeles and New Jersey cadre, representatives of seven of the ten teams which could be contacted indicated that they were functioning as teams. (Appendix I, Question 2). Five of these seven were optimistic about career education succeeding in their district. During the Wisconsin-Illinois follow-up all 11 of the workshop teams were represented by one or more team members. With one exception, each team's progress report indicated that the team had met more than once since the workshop and had engaged in a number of other activities. More specifically, two teams in Illinois had formed joint ventures with existing career education committees. The Pasadena school district in California took the same approach to becoming institutionalized within the local district. Three Illinois teams and two Wisconsin teams developed summer timelines for the inservicing of administrators or teachers. The other districts developed similar timelines for Fall 1977.

Anecdotal observations during the workshop offer further support of the cadre's and staff's perceptions on the cohesiveness and planfulness of teams during the workshop iteslf. Several observations are recounted here.

In California the Pasadena school district chose regularly to leave the training room during module delivery and spend the time in planning for local implementation. Pasadena developed during the four-day training period a comprehensive implementation plan utilizing the project's planning concepts and forms. The team was motivated by the opportunity to describe the plan for Ken Hoyt's reactions during the Office of Career Education director's discussion session with the participants on the workshop's final day.

A team in Illinois, District 214, felt it had so progressed in its planning for local implementation during the workshop, that the superintendent was telephoned and asked to meet with the team for an hour the next afternoon. The superintendent participated in the next day's planning session, and the team reported it had secured the superintendent's official approvals and commitment for any active support requested.

The Waukesha team from Wisconsin often left the training room for planning purposes. It was perceived by the staff as being highly successful on all the planning dimensions studied. That team's follow-up activities were many and successful.

In New Jersey many statewide officers visited the training sessions as observers. When the state coordinator for vocational education alerted the cadre teams to an upcoming statewide conference on vocational and career education, representatives of the training groups asked if the teams might be placed on the conference's formal agenda. That agenda was viewed as a mechanism for a self-selected follow-up for the training teams. (Unfortunately, because the New Jersey workshop was held late in the academic year, the Project Cadre budget and the short time before June 30 prevented follow-up during this phase of the project.)

Though formal steps have not yet been taken, the site coordinator for Illinois suggested the Wisconsin-Illinois cadre form a regional network of training teams for career education infusion which could be supportive of one another and a resource to districts throughout the service area. Numerous other suggestions were proposed as to ways of institutionalizing the teams and providing mechanisms for additional team meetings.

Collectively, the composition of teams, cohesiveness ratings, and anecdotal data are the evidence that the project procedures, both before and during the workshop, facilitate a collaborative team structure for implementaing career education. Most teams coalesced through the project, and most participants were positive about the team experience and confident that their teams would be able to offer the inservice intended by the project.

Plans and Their Implementation

At the workshops planning forms were presented as models and guides. The teams were receptive to the concepts and practices represented on the planning forms. Before using the forms, however, they had to reconcile the ideas embodied in them with existing district programs and policies. For many teams, the first few planning sessions were characterized by a review of the political and social factors which the team must confront on its return to the district as it attempted to draw support for the implementation of a workshop-developed career education infusion staff development plan. These discussions were preliminary to any technical discussion about assessing the career education learning needs of students or the training needs of teachers and then proceeding through the other steps of the planning model. Their length prevented cadre from constructing the detailed plans called for by the guides. Some teams were also frustrated by their lack of knowledge of what was happening in their district and by their inability to obtain that information during the workshop.

The original objective was to establish criteria and rate the plans submitted at the close of the workshop. Once the quality of the plans had been quantified, those data were to be correlated with the learning and satisfaction data, and with several follow-up data, to identify the strength and direction of these interrelationships. No team, however, did a complete written plan by the end of the workshop. Every team in Wisconsin, Illinois, and New Jersey reported progress toward a plan, but the quality of these efforts could not be rated since the criteria for judging the quality of the plans were supposed to be derived from the concepts and operations inherent in the 5-step planning forms. Although many teams reported incorporating ideas embedded in the planning forms into their projected activities, such activities were not sufficiently comparable across teams to allow ranking. Consequently, teams were not differentiated on the quality of their plans. It is noteworthy, however, that every team in Wisconsin, Illinois, and New Jersey reported progress in planning.

An alternative procedure was used in follow-up. A content analysis of each cadre team plan was completed from the tape recorded progress report at the workshop and the implementation steps identified by the plan to occur between the workshop and the follow-up were listed sequentially on a checklist. During the follow-up sessions in Wisconsin and Illinois, a rater listened to the team's progress reports and checked each step listed on the checklist as either completed/not completed. The number of steps completed was divided into the number of steps planned in order to yield a measure of degree of implementation.

A summary of the Wisonsin-Illinois checklist data can be found in Table 5. The data indicate a high degree of implementation (70%) occurred across all teams and are accepted as evidence of a desirable rate of implementation as a result of the workshop training. In view of the complexity and difficulty of district career education planning reported by Jacobson and Mitchell (1977), these gains must be regarded as substantial.

Table 5

DEGREE OF IMPLEMENTATION FOR WISCONSIN-ILLINOIS CADRE AS INDICATED BY PERCENTAGE OF PLANNED IMPLEMENTATION STEPS ACTUALLY COMPLETED

Area	District	Steps Planned	Steps Completed	Degree of Implementation
Illinois (N = 5)	Johnsburg	6	4	66%
	District 211 et. al.	8	7	88%
	Du Page	6	4	66%
	District 204	5	5	100%
	District 214	7	7	100%
		32	27	84%
Wisconsin (N = 5)	Brown Deer	4	0	0%.00
	Shorewood	4	1	25%
	Greenfield	2	1	50%
	West Allis	1	1	100%
	Waukesha	5	4	80%
		16	7	44%
	TOTALS (N = 10)	48	34	70%

Because the intended planning model and forms were impractical, it is not possible to relate the quality of the team plans to the degrees of learning, planning, and satisfaction which occurred at the workshop. Nor can the quality of the plans be related in any systematic way to the composition of the workshop teams. The hypothesis would be that these relationships are highly interactive and multidimensional. In some cases planning ability is likely to be more a function of the opportunity to coalesce as a planning team during a goal-oriented training period than of workshop training or of satisfaction with a training experience. More evidence on these relationships can be accumulated through a series of in-depth interviews with the individual cadre who took part in post-workshop implementation and planning activities. This step will be included in any further follow-up of the 1976-77 Project Cadre training teams.

Cognitive Growth

The distribution of difference scores in Figure 6 shows that most cadre increased their understanding of the concepts and strategies taught during the workshop. A "t" test of correlated means indicates the increase was significant at .001 level. Consequently, in all workshop sites, cadre increased their knowledge of career and inservice education as reflected by their ability to answer a random sample of items testing the objectives of the workshop's modules.

Understanding the theory and concepts of career development, including self-awareness, planning and decision-making, career awareness, team planning and evaluation, and possible strategies for involving community resources in career education is an essential first step in the cadre's abiltiy to design and deliver effective inservice to teachers. This was confirmed recently when one of the few probing reviews of a state's career education implementation indicated that efforts were fragmentary primarily because teachers lacked understanding of the basic concepts and principles of career education (General Accounting Office, 1976). The data in Figure 6 suggest that cadre have increased their ability to offer inservice in career education.

Expectations of Inservicing Teachers

Project Cadre endeavored to have its cadre conceive of career education as an ongoing systematic effort involving the development of self-awareness, career awareness, and planning and decision-making in such a way that students learn to expand these aspects of themselves on their own. Table 6 and Figure 7 show the cadre's receptiveness to the teaching elements of such an ongoing, systematic effort to teachers. Significantly, most cadre expect to present to teachers most elements of the comprehensive program. Although pre-workshop data were not obtained, the fact that 42% of the cadre had no formal training in career education suggests that the workshop significantly boradened their perspective of it. Certainly, anecdotes suggested this. A couple of cadre even said

Figure 6

DISTRIBUTION OF DIFFERENCE SCORES

Change Score	Absolute Freq	Relative Freq (Pct)	Adjusted Freq (Pct)	Cum Freq (Pct)
-3.	2	1.4	2.1	2.1
-2.	5	3.4	5.3	7.4
-1.	5	3.4	5.3	12.8
0.	5	3.4	5.3	18.1
1.	15	10.3	16.0	34.0
2.	18	12.3	19.1	53.2
3.	12	8.2	12.8	66.0
4.	8	5.5	8.5	74.5
5.	7	4.8	7.4	81.9
6.	2	1.4	2.1	84.0
7.	5	3.4	5.3	89.4
8.	4	2.7	4.3	93.6
9.	4	2.7	4.3	97.9
10.	2	1.4	2.1	100.0
Missing Data	52	35.6	Missing	100.0

Table 6

PERCENT DISTRIBUTION OF RESPONSES ON EXPECTATION SCALE

		Percent Responding				
I expect the educators we train to:	Workshop Site*	(5) Very Much	(4) Much	(3) Some	(2) Little	(1) Not At All
1. Restructure instruction so that planning and decision-making receive more emphasis.	Milw.	10.0	30.0	50.0	5.0	5.0
	Chicago	14.7	29.4	52.9	2.9	0
	Newark	19.2	38.5	42.3	0	0
	TOTAL	15.0	32.5	42.3	0	0
2. Use community resources more to improve instruction.	Milw.	20.0	40.0	30.0	10.0	0
	Chicago	25.7	51.4	20.0	2.9	0
	Newark	34.6	38.5	26.9	0	0
	TOTAL	27.2	44.4	24.7	3.7	0
3. Develop career activities similar to those in the examples provided during the workshop.	Milw.	20.0	40.0	30.0	10.0	0
	Chicago	2.9	42.9	48.6	5.7	0
	Newark	19.2	26.9	53.8	0	0
	TOTAL	12.3	37.0	45.7	4.9	0
4. Integrate parents, workers, and volunteers into classroom instruction.	Milw.	15.0	40.0	35.0	10.0	0
	Chicago	14.3	37.1	48.6	0	0
	Newark	26.9	30.8	30.8	11.5	0
	TOTAL	18.5	35.8	39.5	6.2	0
5. Point out and demonstrate the importance of subject matter skills to particular occupations and training programs.	Milw.	20.0	45.0	25.0	10.0	0
	Chicago	35.3	41.2	23.5	0	0
	Newark	50.0	38.5	11.5	0	0
	TOTAL	36.3	41.3	20.0	2.5	0
6. Provide students more feedback about specific abilities developing within the class.	Milw.	15.0	55.0	25.0	5.0	0
	Chicago	22.9	57.1	20.0	0	0
	Newark	30.8	50.0	19.2	0	0
	TOTAL	23.5	54.3	21.0	1.2	0
7. Know more about obtaining career information for classroom use.	Milw.	25.0	50.0	10.0	15.0	0
	Chicago	40.0	34.3	25.6	0	0
	Newark	34.6	57.7	7.7	0	0
	TOTAL	34.6	45.7	16.0	3.7	0
8. Direct instruction more toward career development.	Milw.	10.0	35.0	40.0	5.0	10.0
	Chicago	17.1	48.6	28.6	5.7	0
	Newark	15.4	53.8	30.8	0	0
	TOTAL	14.8	46.9	32.1	3.7	2.5
9. Encourage girls more in exploring careers which have been dominated by males.	Milw.	10.0	45.0	35.0	10.0	0
	Chicago	22.9	34.3	28.6	14.3	0
	Newark	38.5	30.8	26.9	3.8	0
	TOTAL	24.7	35.8	29.6	9.9	0
10. Teach students that every occupation has value.	Milw.	55.0	20.0	25.0	0	0
	Chicago	45.7	38.6	22.9	2.9	0
	Newark	36.0	44.0	20.0	0	0
	TOTAL	45.0	31.3	22.5	1.3	0

*No expectation scale for Los Angeles

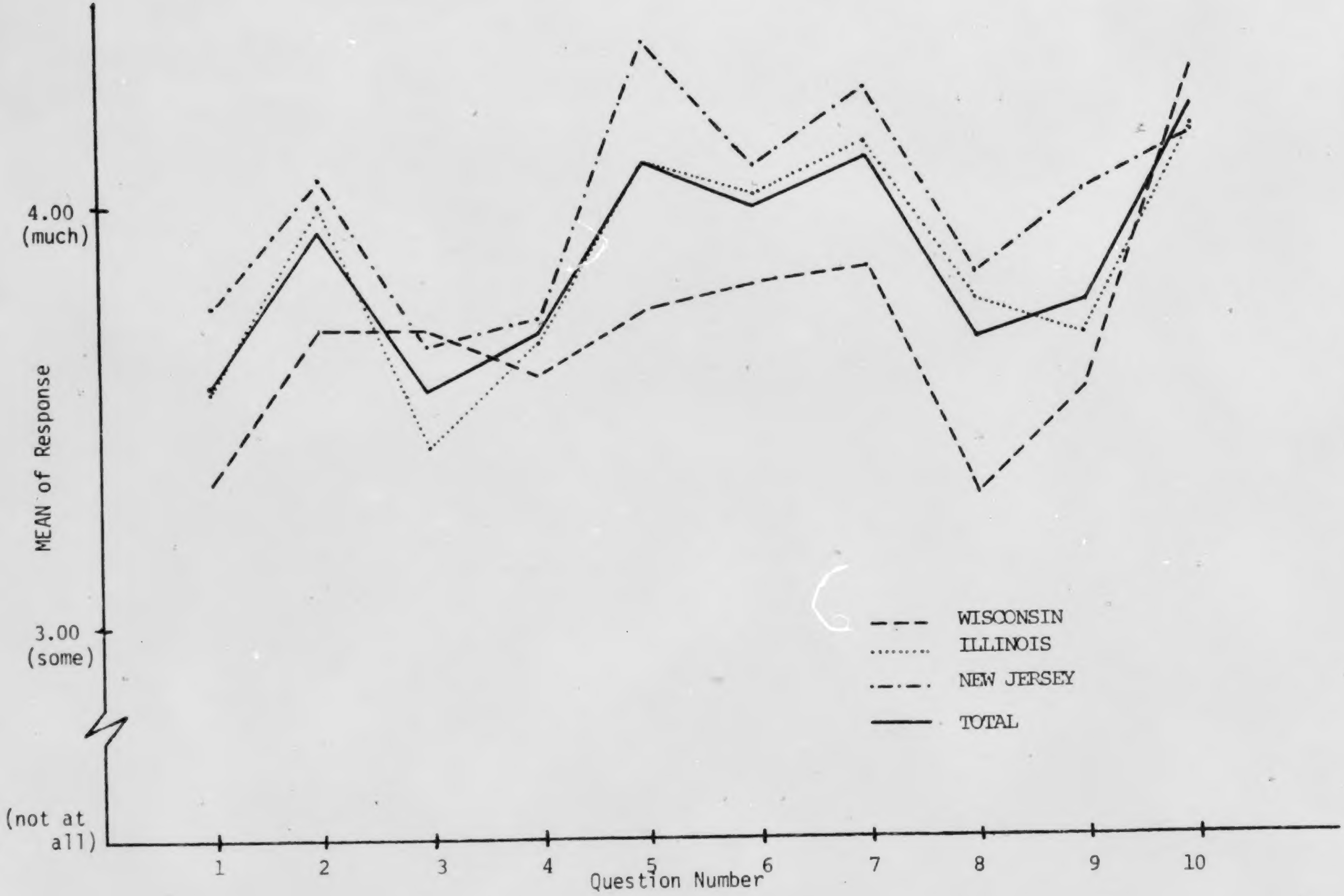


Figure 7

Graph of Mean Expectations by Site*

*No expectation scale for Los Angeles

they had come to understand the need for the attention to theory and concepts in the workshop, even though they had started the workshop believing theory was unimportant and too academic. Surprisingly, further analysis presented below, indicates that district support rather than learning or background is more related to the expectation of follow through by cadre.

Improvements Suggested by Formative Evaluation

A third important question, indeed the most important in view of the project's formative evaluation thrust, concerns the improvements in operation of the project and its workshops which were suggested by implementation of the project. Experiences in three aspects of the project are especially relevant to this question: recruitment and selection of cadre, delivery of the workshop, and evaluation of workshop impact.

Recruitment of Cadre

Table 3 shows that the majority of teams attending three of the four workshops were comprised of personnel recommended to be on the teams. For those three workshops the procedure below was set up and followed in recruiting cadre teams and arranging for workshops. Since Los Angeles was the first workshop and since there was one month less lead time for its preparation, steps 1, 2, 3, 4, and 7 were omitted and the coordinator and project staff agreed to accept as participants teams not meeting the project's specifications. These departures from the recruiting policy resulted in recruiting large a percent of teams which did not meet the project's specifications.

At the three sites where the procedures were followed, the only complaints received during the project about recruitment concerned unavailability of project materials before the workshop and inability of cadre to voice specific concerns before the workshop that could be addressed during the workshop. To correct this, step 9, which is in parentheses, will be added for future workshops. Otherwise, however, the steps followed in this project were effective.

The recruiting procedures were:

1. Develop a network of career education offices characterized by a hierarchical arrangement of positions and by open, two-way channels of communication.

2. Initiate communication from the highest office downward: If the training effort is national, as was Project Cadre, communication from the project whould begin with the office of the state coordinator for career education.

3. As each office is contacted, ask the higher office to identify people in the lower offices who will be most effective: Project Cadre asked that state coordinators identify site coordinators who could set up the training teams and training sites effectively.

4. Consider the site coordinator as the critical link in the network of offices: Select as site coordinator the individual (1) highly regarded by the state coordinator, (2) enthusiastic about the program proposed, (3) actively involved in district level career education programs, and (4) in a position within an organization that can subsequently support local training efforts which follow from of the proposed training program. (This fourth condition can be optional, but is strongly preferable.)

5. Inservice the site coordinator personally and comprehensively at the site coordinator's local site.

6. Direct the site coordinator to identify interested districts and to arrange an orientation session between the project manager and representatives (district level) from all interested districts: Conduct this orientation meeting at a local site.

7. Arrange through the site coordinator, for school level conferences about the training program with the district representatives. Include in the school meetings the project manager, the site coordinator, the principal, an administrative assistant, a guidance or counseling specialist, a teacher or two, and the district level representative. The meeting should result in not only the school's commitment to the program but the tentative identification of the staff who will form the workshop team.

8. Delegate to district representatives and to site coordinators jointly the responsibility of the recruitment of cadre team members and workshop participants. This step is important because it builds in the element of local control at both the district and regional levels.

(9). Send identified cadre members the project instructional materials along with the address of the project. They should be advised to read materials carefully and send suggestions to the cadre staff about points they would like added or emphasized.

10. Assign responsibility for all administrative arrangements for the workshop to the site coordinator, in regular consultation with the project manager. Again, the element of local control and impetus is crucial for facilitating post-workshop implementation.

11. Reserve the management and conduct of the workshop itself for the project director.

Impressions from Workshop and Their Implications for Revision of the Modules

This section presents the cadre's impressions of the modules and the commentary of the senior author on the modules. The remainder of the staff preferred to give less structured comments. Their comments appear in Appendix J. Especially noteworthy among those comments is the suggestion for an alternate opening exercise for the career awareness module by the junior author.

Cadre commentary. Below in Tables 7-12 are the cadre's ratings of the six modules delivered at each of the last three workshops. Inspection of the ratings indicates that the modules were moderately well received. The rating form used by the cadre elicited unstructured responses in addition to the ratings. Most cadre made no comments, but those which were made appear in Tables 13-18. Below a summary of comments for each module accompanies the table of ratings and comments for the module.

A cadre's rating of the six modules on his/her own ability to deliver the module, its benefit for his/her teachers, the quality of written materials, and the quality of the presentation was summed. This formed four subscores entitled: ability to deliver module, benefit to teachers, quality of materials, and quality of delivery. These subscores were summed to produce the total module evaluation score. As previously noted, the subscores indicated moderate satisfaction with instruction. Here the subscores are correlated with each other, with the total modules evaluation score, and with the total satisfaction score. The correlation matrix appears in Table 19. Inspection of the matrix shows that each of the ratings are moderately correlated, excepting the ratings of the quality of written materials and the quality of delivery, which correlate .80. The generally moderate correlations suggest that cadre were judging each module on the four characteristics separately and that one rating would not suffice for the four. The moderate as opposed to a high correlation also reduce the possibility of a "hello-goodbye" effect operating in the ratings.

The cadre's unstructured comments and suggestions are presented by module in Tables 13-18. Multiple comments appear first, and then individual comments are presented by site. The range of comments for each module is difficult to summarize, especially since some are contradictory. The comments do, however, complement the ratings above and should be considered together.

At the risk of oversimplification, a brief overview of the cadre commentary is attempted for each module.

Theory module. The cadre were generally satisfied with the theory module, although some doubted the need for a theoretical perspective to career education. Audiovisuals might improve the module and would make it easier for cadre in turn to deliver it. Cadre could not read the module beforehand, and several felt they would have profited from reading its content beforehand.

Planning an inservice. The respondents generally appreciated the Planning a Career Education Inservice module, but a relatively large

Table 19

CORRELATIONS AMONG WORKSHOP SATISFACTION MEASURES

MEASURES	2	3	4	5
1. Workshop Satisfaction	.48 (67)	.43 (57)	.47 (67)	.44 (66)
2. Cadre Ability to Deliver Module	-----	.49 (64)	.56 (73)	.58 (72)
3. Quality of Written Materials	.48 (64)	-----	.80 (63)	.65 (64)
4. Quality of Staff Presentation	.56 (73)	.80 (63)	-----	.68 (72)
5. Prospective Benefit for Teachers	.58 (72)	.65 (64)	.68 (72)	-----

Note: Number of cases for each correlation is in parentheses.

Table 7

CADRE EVALUATION OF MODULE 1:

INFUSING SELF-AWARENESS AND SELF-CONFIDENCE INTO THE CLASSROOM

			Percentage Responding to Each Question			
			Question 1*	Question 2*	Question 3*	Question 4*
Wisconsin	High	5	22.2	16.7	27.8	11.1
		4	50.0	38.9	33.3	61.1
	Moderate	3	16.7	44.4	33.3	22.2
		2	11.1	0.0	5.6	5.6
	Low	1	0.0	0.0	0.0	0.0
	Total Responses	19				
Illinois	High	5	31.4	20.0	17.1	22.9
		4	31.4	37.1	54.3	51.4
	Moderate	3	25.7	40.0	22.9	22.9
		2	11.4	0.0	5.7	2.9
	Low	1	0.0	2.9	0.0	0.0
	Total Responses	33				
New Jersey	High	5	33.3	7.4	29.6	22.2
		4	33.3	51.9	40.7	40.7
	Moderate	3	22.2	22.2	25.9	25.9
		2	11.1	18.5	0.0	11.1
	Low	1	0.0	0.0	3.7	0.0
	Total Responses	26				

*Question 1: After reading and observing the delivery of this module, I believe that my ability to deliver it to teachers in my district is . . .

*Question 2: In my estimate, teachers in my district would obtain the amount of benefit circled by reading and having this module presented to them . . .

*Question 3: The value of the module's written materials to me and the teachers I will serve is . . .

*Question 4: The value of the presentation of this module in clarifying its ideas and demonstrating a way of presenting it is. . .

**No Evaluations for Los Angeles

Table 13

CADRE COMMENTS ON MODULE 1:

CAREER DEVELOPMENT AS THE INTEGRATING CONCEPT OF CAREER EDUCATION

More participation, more interaction, more activities, less lecture (9 people).

Four wished they had had the materials to read before the workshop.

Four (all in Newark) asked for A-V materials.

Three (one in Milwaukee and two in Chicago) said theory "turned them off" or felt teachers did not want so much theory.

Two in Newark complained about the terminology ("too much gobbledegook").

More use of inquiry in discussion.

Start with Module 1 so that people can get to know each other.

Working definition of CE is still vague. The openness of the definition makes it too difficult to have an agreeable direction.

I do think that the module can be modified to be more pertinently useful in my school than it is as presented. The problem of little substantive research was the handicap.

We've had a couple of false starts on career; therefore, it is most difficult to judge and apply to "our" staff, etc., at this point in time.

You can't begin with theory! Begin with examples to stimulate, build working definitions. Then as interest increases, refer to Super, Hoyt, etc.

If presented on Monday morning, more warm-up exercises.

Evidence that Super's model in theory works in practice.

Might relate educational goals to CE goals generally.

Am still concerned about the material "lighting a fire" to teachers and administrators who are so subject oriented.

Less talk.

Well adapted to a lecture format. Since you probably can assume a higher than average interest in CE from the participants here, a less hortatory tone might be quite effective.

Most valuable part . . . was clarifying the definition of CE.

The module was well presented and lends itself to much discussion. Through discussion, the relevance of said module becomes clear.

I only regret that this course could not be offered to our teacners on a semester basis. This unit presents a fine guide or point to continue from where more in-depth production related to same would be so valuable. But, alas, time was too short for this.

The base from which to begin infusion process is excellent. It enables individuals who participate to establish goals and objectives for infusion. This is made possible because of a philosophical base from which to work.

I am impressed with the reality of your presentations--you are aware of and in contact with what is actually happening in the field.

The activity was useful in breaking the initial tense feelings of the people in the conference.

I felt we went too fast; I understood it better after reading at home.

Good delivery, good examples.

This material was not interesting nor particularly helpful. I hope future modules will be better.

Table setup was poor yesterday; found it difficult to see and hear people up front.

number asked for more exercises to become involved. Parts of the module were singled out as useful, and some respondents felt they did not need the review which the module provided for them.

Self-awareness. Cadre liked the modeling of self-awareness activities and the well-described teaching practices illustrating how to promote self-awareness. In this and other modules there is a definite need for participant involvement in interesting activities--sometimes gimmicks--which illustrate the content to be communicated.

Career planning. Cadre like this module, its thinking exercise illustrating decision-making principles and its exemplary infusion practices. The team decision-making exercise was not as well received, possibly because it detracted from the focus on the decision-making strategies for students.

Community panel. The community panel was generally well received. Some cadre had suggestions for additional panelists, and some would have preferred less structure by the moderators.

Career awareness. This module was satisfying to cadre but not as stimulating as self-awareness or decision-making. Suggestions included retitling some of the occupations in Holland and more precision in definitions.

Table 8

CADRE EVALUATION OF MODULE 2:

PLANNING A TEACHER TRAINING INSERVICE FOR CAREER EDUCATION

			Percentage Responding to Each Question			
			Question 1*	Question 2*	Question 3*	Question 4*
Wisconsin	High	5	5.6	0.0	16.7	5.6
		4	22.2	22.2	33.3	22.2
	Moderate	3	33.3	38.9	27.8	38.9
		2	33.3	16.7	16.7	27.8
	Low	1	5.6	22.2	5.6	5.6
	Total Responses	18				
Illinois	High	5	8.3	5.6	13.9	13.9
		4	38.9	41.7	38.9	27.8
	Moderate	3	33.3	36.1	30.6	44.4
		2	16.7	13.9	13.9	8.3
	Low	1	2.8	2.8	2.8	5.6
	Total Responses	36				
New Jersey	High	5	21.4	21.4	32.1	25.0
		4	39.3	21.4	28.6	28.6
	Moderate	3	35.7	50.0	35.7	32.1
		2	3.6	3.6	3.6	14.3
	Low	1	0.0	3.6	0.0	0.0
	Total Responses	28				

*Question 1:	After reading and observing the delivery of this module, I believe that my ability to deliver it to teachers in my district is . . .
*Question 2:	In my estimate, teachers in my district would obtain the amount of benefit circled by reading and having this module presented to them . . .
*Question 3:	The value of the module's written materials to me and the teachers I will serve is . . .
*Question 4:	The value of the presentation of this module in clarifying its ideas and demonstrating a way of presenting it is. . .

**No Evaluations for Los Angeles

Table 14

CADRE COMMENTS ON MODULE 2:

PLANNING A TEACHER TRAINING INSERVICE FOR CAREER EDUCATION

More participation (9 people). Instead of a continuous lecture, I think that a series of exercises leading people through production of goal statements, objectives, etc., of the MBO model would have been more effective. I wanted very much to get away from talk and to try to do." "Not enough time to dig in. Too much lecture!"

Two people asked for an overhead projector or some type of audio-visual materials.

M.B.O. is a term and method I have previously run into and at that time I was not overly impressed (as a teacher).

Objective writing and workshop popularity is very low in our district. We have had much.

Our teachers have been generally against behavioral objectives.

Less on this until group is more knowledgeable.

Again it is difficult for me to judge value at this time; I'm having difficulty sorting it out.

The writing of objectives is useful in the normal classroom environment but I am at a loss as to the purpose of these written objectives and their use in this workshop.

Well organized from the point of view of what and how to present materials.

Our group spun off to its own discussion of the type of program we want to develop. The time was useful, the charts not. You should hire teachers as consultants over the summer.

I'm sure that we didn't get full impact of this session because of interruption--although our group did talk during the break!

This module is not altogether appropriate for all school districts.

Being vague about the theory or being sold on it hurts the effectiveness of this module.

Planning module was thought provoking and quite interesting.

Sample experimentation incorporating planning with the workshop group would have been interesting.

The opportunity to work out needs assessment is the real value to the module.

Good, practical, systematic, useful.

Insufficient specificity.

I like the turn into dealing with the local project.

Well done.

Consistent to progress already established in the Wayne district.

This module seems to be the pivot for the success of any career program. Possibly more time could be spent to help us understand this more fully. Examples in the form of problems might be useful.

The manner in which this material is compiled is excellent. It is not complicated and participants can have no problems in understanding objective to be achieved by completing M/O sheets.

Organization and presentation was excellent.

Arranging the tables to semi-circle style will be beneficial towards continuous eye-to-eye contact with instructor.

Every graduate course in the last two years covered this process but titled it differently, T&E, Title III process, now Cadre process.

I hope we'll have more time for the planning today.

Good delivery--give and take of participants was excellent.

Some information is needed on methods of adapting materials for groups with more (or less) expertise in CE.

More examples of the performance objectives in difficult areas (attitudinal, etc.) are needed.

The afternoon presentation was a little more interesting than the morning one.

Confusing presentation of charts.

Again, higher structure at first.

Table 9

CADRE EVALUATION OF MODULE 3:

INFUSING CAREER PLANNING AND DECISION MAKING INTO CLASSROOM INSTRUCTION

			Percentage Responding to Each Question			
			Question 1*	Question 2*	Question 3*	Question 4*
Wisconsin	High	5	15.8	26.3	10.5	21.1
		4	47.4	42.1	57.9	47.4
	Moderate	3	36.8	36.6	31.6	31.6
		2	0.0	0.0	0.0	0.0
	Low	1	0.0	0.0	0.0	0.0
	Total Responses	19				
Illinois	High	5	37.1	17.1	31.4	20.0
		4	37.1	57.1	48.6	60.0
	Moderate	3	25.7	20.0	11.4	14.3
		2	0.0	5.7	8.6	5.7
	Low	1	0.0	0.0	0.0	0.0
	Total Responses	35				
New Jersey	High	5	25.9	14.8	29.6	37.0
		4	51.9	37.0	40.7	25.9
	Moderate	3	22.2	40.7	25.9	37.0
		2	0.0	7.4	0.0	0.0
	Low	1	0.0	0.0	3.7	0.0
	Total Responses	27				

*Question 1:	After reading and observing the delivery of this module, I believe that my ability to deliver it to teachers in my district is . . .
*Question 2:	In my estimate, teachers in my district would obtain the amount of benefit circled by reading and having this module presented to them . . .
*Question 3:	The value of the module's written materials to me and the teachers I will serve is . . .
*Question 4:	The value of the presentation of this module in clarifying its ideas and demonstrating a way of presenting it is. . .

**No Evaluations for Los Angeles

Table 15

CADRE COMMENTS ON MODULE 3:

INFUSING SELF-AWARENESS AND SELF-CONFIDENCE INTO THE CLASSROOM

There was an overwhelming consensus here (20 people altogether). They liked the activities and participation, but wanted even more. "Lots of good interaction took place and the possibilities of even more exist" was a typical comment.

"After the group exercise, there should have been no lecturing, but rather further group exercise as requested. People were asking to learn by doing, not being told about it. It seemed to me that this group was fairly well based in theory and principles re self-awareness, self-confidence, etc. The need of many educators is to get off the theory andput that into practice. Strategies for other group work, identifying the target group--more of how we could see this being put into pracice would have been of greater value."

"I felt we should/could have followed up on the personalizing activity."

Two people felt it was too long without a break.

Suggestions: Audio-visual aids, small group discussion, do this first thing Monday, aids/activities to make materials more palatable to potential audiences. Mention should be made of how pressure from one's peer group at the early high school years can influence his/her readiness to engage in self-awareness activities in classroom.

Two people disliked "contrived situations."

I do not feel I could give this module as a classroom unit but could apply it spontaneously in the classroom very well.

Still concerned about the resistance of this concept by the more experienced teachers.

Really enjoyed this module and feel it is worthwhile and practical.

I thought it was very well done. It promoted thinking, and thinking promotes answers.

More techniques such as those published by Bingham and Tuchman could be used as a part of the presentation.

When instructions are given to read a selection, comments should end; speaker should not continue to speak.

On p. 56, objective 3--module needs clarification. Terms need better defining. For example, the concept I think you were proposing was abstract principles--relate practice to principle. Yet in your list the phrasing is in terms of things you do. Not structured enough for someone else to do as is. But concept is a valid one and worthy of pursuing.

Table 10

CADRE EVALUATION OF MODULE 4:

INFUSING CAREER AWARENESS

			Percentage Responding to Each Question			
			Question 1*	Question 2*	Question 3*	Question 4*
Wisconsin	High	5	15.8	10.5	15.8	36.8
		4	47.4	52.6	47.4	36.8
	Moderate	3	15.8	21.1	31.6	21.1
		2	15.8	10.5	0.0	0.0
	Low	1	5.3	5.3	5.3	5.3
	Total Responses	19				
Illinois	High	5	36.4	30.3	21.2	24.2
		4	45.5	45.5	48.5	51.5
	Moderate	3	15.2	21.2	27.3	21.2
		2	0.0	0.0	3.0	0.0
	Low	1	3.0	3.0	0.0	3.0
	Total Responses	33				
New Jersey	High	5	11.5	0.0	0.0	0.0
		4	23.1	11.5	23.1	12.0
	Moderate	3	23.1	46.2	30.8	56.0
		2	30.8	30.8	34.6	20.0
	Low	1	11.5	11.5	11.5	12.0
	Total Responses	26				

*Question 1: After reading and observing the delivery of this module, I believe that my ability to deliver it to teachers in my district is . . .

*Question 2: In my estimate, teachers in my district would obtain the amount of benefit circled by reading and having this module presented to them . . .

*Question 3: The value of the module's written materials to me and the teachers I will serve is . . .

*Question 4: The value of the presentation of this module in clarifying its ideas and demonstrating a way of presenting it is. . .

**No Evaluations for Los Angeles

Table 16

CADRE COMMENTS ON MODULE 4:

INFUSING CAREER PLANNING AND DECISION-MAKING INTO CLASSROOM INSTRUCTION

At least 13 people commented they liked the module, particularly the delivery.

Groups were good--more time for this sort of thing.

I would like to have been able to spend a little more time on infusion practices.

I think that the infusion activities presented offer good models for teachers to use in writing their own activities. I liked the fact that models are presented for a variety of subject areas.

I rated this module higher than the earlier modules because it got down to the basics and experiences as opposed to theory.

I may have rated this low. It is extremely important but seemed weak for some reason. Possibly the group.

These ideas not new to me.

Please challenge us to see how we can infuse into our classrooms.

Room temperature/ventilation is most important for decision making!

We should be careful to remember that decision-making teaching involves discussing values--many will resist that.

The module has many exciting ideas pertaining to mathematics. This is a surefire method of incorporating CE with core material.

Need other more sophisticated decision-making infusion activities.

In considering implementation in our district there are many constraints which need to be considered and dealth with before we can do much of this. We nned time to analyze them and consider how to deal with each as part of the implementation process.

Shaky start, but progressed rather well; good activities; good topic.

Need H.S. materials.

I felt the group activities were worthwhile.

Good insight into how much accurate data is needed to come to a satisfying decision.

Table 11

CADRE EVALUATION OF MODULE 5:

INTEGRATING COMMUNITY RESOURCES INTO CAREER EDUCATION

			Percentage Responding to Each Question			
			Question 1*	Question 2*	Question 3*	Question 4*
Wisconsin	High	5	15.8	52.6	11.1	42.1
		4	73.7	36.8	50.0	52.6
	Moderate	3	5.3	0.0	33.3	0.0
		2	0.0	10.5	5.6	5.3
	Low	1	5.3	0.0	0.0	0.0
	Total Responses	19				
Illinois	High	5	57.6	54.5	25.0	55.9
		4	36.4	39.4	32.1	44.1
	Moderate	3	6.1	6.1	39.3	0.0
		2	0.0	0.0	0.0	0.0
	Low	1	0.0	0.0	3.6	0.0
	Total Responses	33				
New Jersey	High	5	37.0	30.8	17.4	48.1
		4	37.0	30.8	34.8	33.3
	Moderate	3	18.5	26.9	30.4	14.8
		2	3.7	7.7	13.0	3.7
	Low	1	3.7	3.8	4.3	0.0
	Total Responses	26				

*Question 1: After reading and observing the delivery of this module, I believe that my ability to deliver it to teachers in my district is . . .

*Question 2: In my estimate, teachers in my district would obtain the amount of benefit circled by reading and having this module presented to them . . .

*Question 3: The value of the module's written materials to me and the teachers I will serve is . . .

*Question 4: The value of the presentation of this module in clarifying its ideas and demonstrating a way of presenting it is. . .

**No Evaluations for Los Angeles

Table 17

CADRE COMMENTS ON MODULE 5:

INTEGRATING COMMUNITY RESOURCES INTO CAREER EDUCATION

Many people like this panel. Enthusiasm seemed to be higher in Milwaukee and Chicago than in Newark. About 16 altogether thought panel was excellent.

Method worked out well--many ideas exchanged along with some mutual understanding.

Jim did a fine job as monitor. Does he have his questions in written form?

I find it amazing that we are trying to work toward an awareness of self and seemingly turn around and try to have people identify with something outside of self.

Ideas of cooperation and collaboration offer interesting possibilities. These would exist if care were taken that another "pressure group" is not added, but rather that the group sees itself as sharing responsibility in problem solving.

Structure which would provide more opportunity for interaction between audience and guests.

Wider area of representation would have been helpful, such as labor, for example.

Getting in contact with local resources to provide a panel discussion of this type will take some doing.

More communication needed with community reps to orient them to what is expected of them at the conference.

Including parents?

I am afraid that panel discussion alone would allow teachers to say, "Yes, that's the way it is, but I have to get back and finish the text."

Criticism by industry reps for not having employment people, handicap organization representatives present was most valid.

Good comments on other sources, aside from industry, that can be used.

Enlarge panel to include more areas. About six people said this; suggestions included government, students, and parents.

The process could have been tightened. The moderator could be more sensitive to members of the group. I had difficulty understanding the questions on the Delphi Study rating scales, e.g., the verb "should." The project leaders did not appear to be taking note of some of the suggestions that were given by the community visitors; i.e., invite other pesons who have some impact or interest in careers. Microphones should have been available for the panel use. The panel seemed to be representative of what is happening between school and industry. Industry seems to do a lot of lip service to wanting to help, but when it comes to action . . ..

Business and industrial speakers as guests were a very good idea. However, feedback may have been more beneficial if people were allowed to react spontaneously rather than systematically by group.

All cadres should have had equal input. Constant evaluation of various parts of program made program disjointed.

Will help me set goals.

Highest gain came from audience and the sharing of ideas that come out of their districts, and the personal ideas that they generated.

Some of the teachers should have chaired small group meetings with a business person. This would have been a practical experience.

Advisory Councils are very effective if you can get business leaders to attend.

Support activity with clear goal statements reviewed with the group and summarized--as you would if your were working with young people (students).

Table 12

CADRE EVALUATION OF MODULE 6:

CAREER DEVELOPMENT AS THE INTEGRATING CONCEPT OF CAREER EDUCATION

			Percentage Responding to Each Question			
			Question 1*	Question 2*	Question 3*	Question 4*
Wisconsin	High	5	0.0	0.0	15.8	10.5
		4	36.8	21.1	31.6	36.8
	Moderate	3	42.1	47.4	36.8	36.8
		2	10.5	21.1	5.3	10.5
	Low	1	10.5	10.5	10.5	5.3
	Total Responses	19				
Illinois	High	5	11.1	8.3	5.7	11.1
		4	36.1	36.1	51.4	30.6
	Moderate	3	47.2	33.3	37.1	41.7
		2	2.8	22.2	2.9	13.9
	Low	1	2.8	0.0	2.9	2.8
	Total Responses	36				
New Jersey	High	5	14.3	14.3	32.1	17.9
		4	42.9	21.4	25.0	39.3
	Moderate	3	35.7	53.6	35.7	32.1
		2	3.6	7.1	3.6	0.0
	Low	1	3.6	3.6	3.6	10.7
	Total Responses	28				

*Question 1:	After reading and observing the delivery of this module, I believe that my ability to deliver it to teachers in my district is . . .
*Question 2:	In my estimate, teachers in my district would obtain the amount of benefit circled by reading and having this module presented to them . . .
*Question 3:	The value of the module's written materials to me and the teachers I will serve is . . .
*Question 4:	The value of the presentation of this module in clarifying its ideas and demonstrating a way of presenting it is. . .

**No Evaluations for Los Angeles

Table 18

CADRE COMMENTS ON MODULE 6:

INFUSING CAREER AWARENESS

Six people liked the module--especially the format and the interchange.

Five people in Newark disliked the Holland Cluster concept. Some of these comments were: "N.J. law tends to preclude Holland's cluster." "I just can't buy the concept, especially its hexagonal delineation. Lockout or even suggesting failure to succeed if one were to move too far away from a category negates the idea of a multi-faceted personality." Two people noted that the clusters included job titles which are considered sexist (e.g., advertising man, retail saleswoman, etc.).

Discussions provoke many stimulating ideas, but . . . last too long without a break. Result is we are released for planning at a low point. I would suggest holding hour plan session between presentations of modules.

Brainstorming was good. Discussion of job classifications and board work was helpful.

I feel that career awarenss, although an ongoing process, should be infused into curriculum at a much lower level. Awareness to me should begin at elementary level with the example of a broad base and then have other areas indicated at other two levels, example:

High school	preparation
Middle school	exploratory
Elementary	awareness level

Throughout the workshop, good ideas from various participants do not seem to be noted by trainers.

I found your Discovering Yourself paperpack excellent, but, like most good writers, your oral delivery leaves much to be desired. You speak too rapidly, voice too tense, and a good course in speech improvement would help greatly--also a note of humor whould help.

The subject matter of this module is personally interesting to me; however, the method of delivery turned me off somewhat only because of the sameness of it. Also, I sensed an anxiousness on the part of the deliverer which tended to tense me up a bit.

Prepared visuals would enhance presentation.

Substantive aspects of this comprise career exploration, not career awareness. The concepts that include awareness include: social values of working, interdependence of workers.

Senior author's commentary. Tables 20-26 present the senior author's commentary on each module. First he describes the highlights of each module's presentation, next the elements added and deleted during the presentations, and finally recommended changes. Appendix J contains commentary by other staff who observed delivery of the modules, but it was not rendered in a form allowing its inclusion here.

Table 20

SENIOR AUTHOR'S COMMENTARY ON MODULE 1: SELF-AWARENESS

Presentation

In Los Angeles, the presentation of the get-aquainted exercise for building self-awareness disappointed cadre in the back of the crowded room. They could not hear or see what was happening and had no direct role. The remainder of the presentation went well, although a late start ran the module beyond the lunch hour. Cadre reacted especially well to the discussion of the infusion practices.

In Wisconsin, the initial demonstration was located more centrally and cadre were invited to question the presenter and volunteers in it immediately following. As in Los Angeles, the remainder of the presentation involved cadre to their satisfaction. Especially well received were questions about how the cadre could, in turn, present the self-concept module to their teachers.

In Illinois and New Jersey the presenter substituted an interview exercise for the group get-acquainted exercise to provide an activity for self-rating. The Illinois cadre responded favorably to the exercise and to the rationale of focusing on heuristic principles in studying self-awareness infusion exercises. Some Illinois cadre, however, felt self-awareness was not a major component of career education; while some Wisconsin cadre believed it to be the most important component. The New Jersey cadre reacted less favorably to the interview exercise, dwelling more on its meaning for their own skills rather than on its merits as a point of departure for discussing principles of self-awareness. Both groups, nevertheless, followed the reamınder of the module attentively and were enthusiastic about the infusion practices.

In all sessions the 1-1½ to 2 hours allotted to the module were inadequate to cover all concepts. Coverage would have required reducing cadre participation or ignoring their questions.

Additions and Deletions

At the outset of the module, the presenter listed the following three reasons for focusing on heuristic principles in understanding the development of self-awareness and self-confidence: (1) principles clarify what to do in a procedure by elucidating the procedure's rationale and liekly outcome; (2) procedures with underlying heuristic principles are likely to work; ones without are not; and (3) knowledge of principles will enable cadre to generate many practices for particular self-awareness goals.

A discussion of how cadre might teach teachers about self-awareness was substituted for the exercise of cadre constructing self-awareness evaluation questions. Cadre were not asked to create their own self-rating chart and there was no explicit attention to charting in Los Angeles or New Jersey. More time should be provided for cadre to do charting, while construction of questions should be placed in the evaluation session.

Content Improvement

The rationale of focusing on principles should be included in the written portion of the module. Likewise, cue questions for eliciting discussion of how to present the module to teachers should be added. The module should become more focused on self-awareness and confidence, and learner objectives 5, 6, 7, and 8 should be deleted, while objective 1 should include only major definitions.

Table 21

SENIOR AUTHOR'S COMMENTARY ON MODULE 2:

PROGRAM PLANNING

Presentation

In Los Angeles the module was received poorly. The presenter appeared confused about pacing and the objectives were too ambitious. Many cadre were anxious about our expectation that they would be inservice program developers in career education rather than purveyors of a packaged program. Many knew little about career education and did not know about their own district's career education activities or priorities, and were unsure why they had been sent. Many were angry and confused because they had received very short notice from their districts about their participation and had not been informed about the nature of the workshop and their role in it. Three of the nine teams, however, had a clear idea about their objectives, and the cadre from these teams protested delaying the workshop to orient other cadre. The presenter had difficulty using experiences with performance-based programs shared by cadre to illustrate needs assessment and objectives writing. Those unclear about the topics used the minor confusion to question the purpose of the workshop. After allaying anxiety by assuring cadre that subsequent presentations would clarify the nature of career education, the presentation moved quickly over operations and management planning and the concepts in the planning forms.

Cadre in Wisconsin, Illinois, and New Jersey accepted their role as program developers more readily. At these sites the presenter avoided detailed development of the topics of needs assessment and learner objectives, and instead emphasized performance-based insturction, management and operations planning, and utilization of the planning forms. The only difficulty in an otherwise satisfying presentation arose in attempts to illustrate concepts through cadre experiences. It was not made clear to cadre what they were to share and they had no advance warning; consequently the effort produced more confusion than clarification.

Additions and Deletions

The presentation deleted appropriately cadre construction of test items in accord with specifications 8, 9, and 11. It added a detailed explanation of the major concepts on the planning forms to be used by cadre in team planning.

Content Improvement

The module can be improved by unifying it around the theme of team planning for a performance-based inservice training. The introduction should be clarified (and the horse trading exercise tried by cadre teams to clarify methods of team decision-making). These methods should be discussed in the module text. Performance-based instruction should be presented next, followed by the needs assessment material from the evaluation module. Then teams might read and briefly discuss learner objectives, scoring each other's examples. Testing for mastery should be treated in the evaluation module. Management and operations planning should be reviewed next, followed by a detailed walk-through of the planning forms. Understnading how to use the forms should become a major objective of the module, while objectives 2, 4, 5 and 8 should be deleted or transferred to other modules.

Content Improvement

Roe's occupational level classification, the USOE occupational field classification, and the Holland hexagon should be added and explained in attachments. The module should state more clearly that classification is a vehicle for insuring students are exposed to many occupations and that any system, including one using school subjects as its basis, is appropriate if it assures broad exposure. Greater emphasis should be given to teachers working with community to promote career awareness, possibly by having cadre examine this within the context of presenting this module.

Table 24

SENIOR AUTHOR'S COMMENTARY ON MODULE 5:

COMMUNITY RESOURCES

Presentation

With each presentation it became clear that open communication of the cadre with community people involved in career education was more important than the coverage of particular content. The presentation loosened up from Los Angeles to New Jersey in the sense that the moderator permitted more dialogue between cadre and community and interposed himself less.

The collaborative idea of career education was not generally embraced, but cooperation was. Focus on collaboration in Los Angeles constricted dialogue, and the request for each district to respond to it in New Jersey temporarily constrained dialogue, although the moderator wisely did not press it in Wisconsin or in New Jersey. In Illinois the alternate presenter focused more on promoting dialogue than covering particular issues, with the consequence that his talking time was considerably less than the prime presenter's.

Deletions

The module was delivered essentially as described, excepting that the collaboration theme received heavy emphasis in three of four presentations.

Content Improvement

The module description needs to contain a clear statement that the module's purpose is to provide cadre with the experience of dialoguing with community about shared career education concerns in a give-and-take manner. The process should have priortiy over any content and the moderator should raise those content issues which maximize dialogue. Since this is to be a model of how cadre might initiate teacher/community dialogue, closure on items is not necessary. Rather, there is need to demonstrate the value of the dialogue to the parties. Thus stress should be on shared views and concerns but differences acknowledged and addressed, showing that there is need to cooperate in order to resolved some differences.

Table 25

SENIOR AUTHOR'S COMMENTARY ON MODULE 6:

THEORY

Presentation

In Los Angeles, only volunteer cadre participated in the career education value line because of room size. Others were not assigned an active role and, as a consequence, were not as involved. At other sites, regardless of how winding a line the room necessitated, every cadre was involved in the line. Everyone reacted favorably to sharing their ideas about career education. The presenter took the cadre through the module at a pace which allowed interaction and lots of positive feedback. This was appreciated and cadre participated actively throughout with apparent acceptance for the comprehensive view of career education. In each location the two-hour time frame prevented treatement of some module components and forced hasty coverage of others, particularly the notion of coordination at the close of the module. In the latter three presentations, the question of presenting the comprehensive theory to teachers was posed but not enough time was available for exploring it, except in Illinois. There some useful suggestions for making career education theory more concrete were voiced.

Many Los Angeles cadre wanted concrete examples of career education programs to increase their own understanding and to guide the district; most other cadre were in favor of concrete examples and overlays to facilitate their presentations, and a few wanted a list of annotated references to studies which established the validity of career education programs, but outside Los Angeles few cadre believed that a model plan would substitute for designing one for their district.

Additions and Deletions

The presenter ommitted the exercise of cadre making a biographical outline because of time constraints. This might be made a homework assignment. Likewise, time did not permit cadre meeting in teams and discussing their notions of career development or of the needs of research in career development. This was unfortunate because the Career Growth Index which cadre had completed illustrated career development research and discussion of its relevance to them would have highlighted the need for research.

Added to the presentation was a summary statement about completed research on the work satisfaction of men from Terman's Gifted Children's study. The reference was a February 1977 article in the American Psychologist by Sears. It should be added to the module.

Content

Some work is needed in making transition from major point to point smoother. Likewise, provision should be made to include a brief but comprehensive description of a career education program which operationalizes infusion. In addition, the arguments for career education should be bolstered by an annotated bibliography of quality studies verifying the effectiveness of career education. Such a study was recently released by the USOE. It is entitled Career Education and Basic Academic Achievement, by R. D. Bhaerman, USOE, May 1977. Finally, objective 7 is too specific for this module and should be deleted.

Table 26

SENIOR AUTHOR'S COMMENTARY ON MODULE 7: EVALUATION

Presentation

I did not witness the Los Angeles presentation. At the last three workshops, the presenter's calm manner in reviewing key concepts in the module helped cadre feel comfortable about the idea of formative evaluation in training. Cadre were attentive in all locations, but they asked few questions. Discussion did not address how they would do evaluation, even though one would have expected them to discuss alternative methods of measuring their inservice than those presented in the module. Perhaps this happened because this module was our staff's final presentation or that not enough cue questions were utilized to involve them.

Overall the presentation was quick, highlighting points but not dwelling on them.

Additions and Deletions

Formulating evaluation questions, assessing career development needs, and evaluation questions were omitted or only mentioned, while interviewing was the only evaluation technique discussed in detail. In instrument selection and design, the presenter reviewed the project's evaluation ably but elicited no discussion of alternatives cadre might use.

Content Improvements

The module as constructed lacks complete unity in that it digresses into needs assessment and notes the concerns of classroom teachers, but does not treat fully how the cadre will do or present evaluation in their inservice efforts. Cadre have two needs in regard to evaluation: evaluating the inservice they do and reviewing the evaluation needs which the teachers they inservice will have. The first concern is dealt with in general terms in the module, but it could be treated more specifically by including the performance writing exercises of the planning module and transferring the needs assessment reading to that module. In addition, cue questions should be built into the module to insure that cadre can review how they will do evaluation. The second concern is only addressed in a reading. The positioning of the reading confounds coherence. A complete section on teacher evaluation needs should be developed, perhaps using the present reading as an attachment.

The preceding section has detailed reactions and suggestions for improving particular modules and their delivery. Overall, the modules were perceived as adequately constructed and delivered. Yet every module can be improved. Cadre would have appreciated more concrete exercises and audio visuals to stimulate their attention and to facilitate their own delivery to teachers. The senior author recommended improved organization of concepts and more intensive coverage of fewer concepts. Many particular suggestions for minor revisions were made, especially by the senior author. These defy summarizing. It is recommended that educators wishing to use particular modules consider the revisions and commentary for those modules.

Cadre Characteristics and Workshop Outcomes

A fourth question concerned characteristics associated with satisfaction and success. Cadre differed in many characteristics and came from a variety of districts as reported in Chapter 3. To determine whether background related to workshop outcome for cadre, background characteristics were correlated with satisfaction score, total expectation score, and the difference score. Regression equations for the total satisfaction score, the total expectation score, and the difference score were then computed. Step-down regression analysis, starting with the variables which correlated most highly with the dependent variable, was used to establish the equations. Table 27 presents the correlations among variables. Table 28 presents the respective multiple Rs regression equations and beta weights.

Satisfaction

Examination of Table 27 shows that satisfaction with the workshop is related moderately to satisfaction with delivery of the modules, and to a lesser degree to the number of people from the cadre's district who know about the workshop, to the number of days which the district has allotted the cadre for doing inservice, to the cadre's increase in knowledge during the workshop, and to expectation for doing career education inservice. It is related negatively to the cadre age. Table 28 shows that up to 60% of the variance of the score can be predicted by weighting these characteristics differentially. It is revealing that such district characteristics as number of inservice days allotted and number of persons who know about inservice outweigh cognitive growth and personal background in cadre's satisfaction with the workshop.

Expectation

Examination of Table 27 shows that expectation of inservicing teachers directly in career education is related moderately to the

Table 27

CCORRELATIONS AMONG VARIABLES EXAMINED BY REGRESSION ANALYSES

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Workshop satisfaction score												
2. Posttest	20(89)											
3. Age	15(92)	06(92)										
4. Career growth index score	13(102)	19(98)	07(112)									
5. Salary	11(92)	04(92)	50(112)	09(112)								
6. Years employed outside education	02(92)	02(92)	48(111)	10(111)	22(111)							
7. Organizational memberships	03(92)	20(92)	22(112)	11(112)	13(112)	31(111)						
8. Years of residence in community	01(92)	08(92)	47(112)	13(112)	31(112)	26(111)	21(112)					
9. Number of leadership roles	06(92)	20(92)	32(112)	11(112)	24(112)	31(111)	42(112)	18(112)				
10. No. of career education courses taken	07(89)	04(89)	11(109)	11(109)	05(109)	18(108)	09(109)	05(109)	09(109)			
11. No. of career education workshops attended	01(88)	10(87)	02(107)	07(107)	03(107)	14(106)	16(107)	11(107)	09(107)	44(106)		
12. No. of inservice workshops led	03(85)	14(85)	12(105)	03(105)	13(105)	06(104)	07(105)	06(105)	17(105)	28(104)	43(103)	
13. No. of carer education activities performed	06(91)	07(91)	10(111)	00(111)	05(111)	07(110)	16(111)	02(111)	20(111)	25(109)	44(107)	31(105)
14. Estimate of districts' support for career education	22(64)	07(66)	11(79)	15(79)	06(79)	15(79)	03(79)	01(79)	07(79)	13(77)	12(99)	02(76)
15. Difference score	17(85)	88(94)	11(89)	18(94)	04(89)	04(89)	20(89)	07(89)	20(89)	04(87)	05(85)	08(83)
16. Total ratings of modules	53(56)	08(63)	01(62)	47(63)	19(62)	08(62)	06(62)	20(62)	21(62)	09(62)	10(60)	02(58)
17. Awareness of workshop among district personnel	29(88)	01(90)	12(105)	03(105)	02(105)	02(105)	02(105)	07(105)	07(105)	00(102)	05(100)	05(98)
18. No. of incentives for inservice training	10(87)	06(89)	10(104)	07(104)	02(104)	06(104)	05(104)	01(104)	16(104)	04(101)	01(99)	14(97)
19. Estimated priority of career education within district	05(83)	09(85)	01(100)	13(100)	01(100)	10(100)	07(100)	04(100)	04(100)	14(97)	06(95)	04(93)
20. Occupational level of cadre	04(101)	13(98)	28(112)	21(141)	40(112)	03(111)	06(112)	11(112)	14(112)	02(109)	08(107)	27(105
21. No. of inservice days budgeted	23(56)	14(57)	06(67)	08(67)	13(67)	01(67)	05(67)	02(67)	11(67)	08(64)	22(63)	35(61)
22. Total score on expectation scale	23(73)	00(79)	15(80)	17(81)	02(80)	11(80)	00(80)	01(80)	07(80)	10(79)	04(77)	05(75)

NOTE: N for each correlation is the number in parentheses and the decimal point has been omitted from every correlation.

Table 27 Continued

Variables	13	14	15	16	17	18	19	20	21
1. Workshop satisfaction score									
2. Posttest									
3. Age									
4. Career growth index score									
5. Salary									
6. Years employed outside education									
7. Organizational memberships									
8. Years of residence in community									
9. Number of leadership roles									
10. No. of career education courses taken									
11. No. of career education workshops attended									
12. No. of inservice workshops led									
13. No. of carer education activities performed									
14. Estimate of districts' support for career education	03(79)								
15. Difference score	01(79)	13(65)							
16. Total ratings of modules	02(62)	44(48)	07(63)						
17. Awareness of workshop among district personnel	03(104)	25(77)	01(88)	14(62)					
18. No. of incentives for inservice training	16(103)	03(77)	10(88)	08(62)	24(104)				
19. Estimated priority of career education within district	24(99)	45(74)	15(83)	31(58)	20(100)	01(99)			
20. Occupational level of cadre	19(111)	09(79)	17(94)	11(63)	09(105)	16(104)	02(100)		
21. No. of inservice days budgeted	16(66)	29(49)	15(55)	21(39)	05(67)	30(66)	15(63)	15(67)	
22. Total score on expectation scale	27(80)	28(61)	07(77)	27(63)	20(79)	07(79)	36(74)	12(81)	29(52)

district's priority for career education. It is related somewhat to the number of days allotted for cadre to do inservice by the district, to percieved district support for career education, to the cadre's age, to satisfaction with module delivery at the workshop, to doing career education himself or herself, and to the cadre's own career maturity. Not surprisingly, expectation is negatively related to occupational level. The regression analysis in Table 28 indicates that up to 31% of the variance in the score is predicted by combination of variables. It also suggests that the home district's receptivity to career education account for much of a cadre's predictable estimate of his or her potential for doing inservice. The relationships, of course, reflect reality, since a cadre is unlikely to do inservice without district support. However, it is most informative that cognitive growth in understanding career education or training in career education do not relate to the expectation of doing career education inservice. The cadre believe that, regardless of their own readiness for doing career education, district sanction is necessary for such inservice to become a reality.

The negative relation between expectation for doing inservice and occupational level is also noteworthy though not surprising. Administrators are less likely than teachers and counselors to inservice teachers, although they will have a major voice in deciding the direction of inservice and obtaining resources for its accomplishment.

Difference Score

Cognitive growth over the workshop as measured by the difference score is related to few of the cadre characteristics as seen in Table 27. Not surprisingly, it is somewhat related to satisfaction, cadre career maturity, and occupational level. It is negatively related to the number of non-educational leadership roles and to memberships held by cadre. These two variables, however, are not related as expected to either occupational level or career maturity and therefore do not seem to indicate in themselves that an educator is progressing in his career. Only 9% of the variance of the difference score can be predicted by the best combination of background variables. This is due in part to the limited validity of the difference score and probably to the fact that there are factors contributing to peformance not measured in this study. An obvious missing variable, for instance, is general scholastic ability.

Complete vs. Incomplete District Teams

Comparisons were made between cadre of complete versus incomplete teams. A sizeable majority of cadre (97 our of the 138 which could be classified) were on complete teams. Discriminant analysis, however, could not be used because many cadre had some data missing. Consequently, "t" tests were used to explore differences in background variables.

Table 29 presents the N, means, standard deviation, and "t" values based on a separate variance estimate. In all cases the pooled and separate variance estimates for "t" were not significantly different.

Table 28

SUMMARY OF STEP DOWN REGRESSION ANALYSIS

Total Satisfaction Score

Variable	Multiple R	R Square	RSQ Change	Simple R	Beta
Module Evaluation Total	0.52	0.28	0.28	0.52	0.94
Number of District Personnel Checked	0.57	0.32	0.04	0.29	0.24
Salary	0.60	0.36	0.04	-0.11	-0.33
Priority of Career Education in District	0.63	0.39	0.02	0.04	-0.26
Number of Non Educational Leadership Roles	0.65	0.42	0.02	-0.05	-0.37
Occupation Level	0.67	0.45	0.02	-0.04	0.35
Total Score on Career Growth Index	0.71	0.50	0.05	0.12	-0.35
Number of Active Memberships	0.74	0.56	0.05	0.03	0.29
Number of Career Education Courses Taken	0.76	0.58	0.02	-0.07	-0.18
Posttest Score	0.77	0.60	0.01	0.20	0.13
(Constant)					

Total Expectation Score

Variable	Multiple R	R Square	RSQ Change	Simple R	Beta
Priority of Career Education in District	0.36	0.131	0.13	0.36	0.26
No. of Days Allocated to Inservice	0.43	0.188	0.05	0.28	0.23
Occupation Level	0.46	0.216	0.02	-0.12	-0.29
Age	0.50	0.254	0.03	0.15	0.18
Career Education Activities Personally Done	0.53	0.287	0.03	0.26	0.20
Total Score on Career Growth Index	0.55	0.311	0.02	0.16	0.15
(Constant)					

Table 28

SUMMARY OF STEP DOWN REGRESSION ANALYSIS (Cont'd)

Difference Score Variable	Summary Table Multiple R	R Square	RSQ Change	Simple R	Beta
Number of Active Memberships	0.20	0.040	0.04	-0.20	-0.21
Total Score on Career Growth Index	0.25	0.066	0.02	0.18	0.14
Age	0.29	0.085	0..01	0.10	0.14
(Constant)					

From Table 29 it appears that the cadre from incomplete teams had done more career education activities and had performed in more leadership roles within and outside of education. Cadre from complete teams, on the other hand, were from school districts which had larger per pupil expenditures. The latter tendency is to be expected, while the former suggests that the incomplete teams at least contained cadre likely to do career education, while the complete teams had to include educators with more diverse backgrounds in order to fill teams. Perhaps of most importance, however, is the fact that there were many more similarities than differences. The primary differnce between complete and incomplete teams appeared to be number of members.

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Table 29

COMPARISONS OF CADRE FROM COMPLETE AND INCOMPLETE TEAMS ON SELECTED VARIABLES

Variable	N	Complete Team		N	Incomplete Team		t
		Mean	Stand. Dev.		Mean	Stand. Dev.	
Posttest	(81)	7.7	2.63	(17)	8.4	2.74	-.98
Difference Score	(78)	2.7	2.98	(16)	3.5	3.54	-.91
Employment Outside Ed.	(86)	1.8	1.24	(23)	2.0	1.69	-.70
Organization Memberships	(86)	1.7	1.00	(24)	2.2	1.17	-1.58
Leader Roles	(86)	1.0	.93	(24)	1.5	.83	-2.84*
Years of Residence	(86)	2.7	1.25	(24)	2.7	1.29	.06
Salary	(86)	3.0	.85	(24)	2.9	.80	.59
Courses in Career Ed.	(84)	1.3		(23)	1.6		-.65
Amount of Inservice on Career Ed.	(82)	1.6	1.49	(23)	2.0	1.71	-1.04
No. of workshops Led	(80)	.9	1.07	(23)	1.3	.93	-1.90
Career Ed. Act. Per.	(86)	2.5	1.83	(23)	3.8	1.85	-2.95*

Table 29 (Cont'd)

COMPARISONS OF CADRE FROM COMPLETE AND INCOMPLETE TEAMS ON SELECTED VARIABLES

Variable	N	Complete Team Mean Stand. Dev.	N	Incomplete Team Mean Stand. Dev.	t
Dist. Support of Car. Ed.	(61)	56.0 10.99	(16)	56.0 8.09	-.01
Days Budgeted for Car. Ed. Inservice	(54)	1.7 .73	(12)	1.4 .55	2.12
Awareness of Workshop Among Dist. Personnel	(83)	3.0 1.42	(21)	2.9 1.28	.41
No. of Incent. for Inserv. Training	(82)	1.0 1.0	(21)	.9 .88	
Priority of Car. Ed. by District	(70)	2.5 .73	(20)	2.6 .50	
% of Minority Stud. in District	(80)	1.6 1.09	(21)	1.9 1.49	-.87
Median Stud. Fam. Income	(77)	2.5 .78	(21)	2.2 .63	1.83
No. of High School	(82)	1.81 .81	(22)	1.90 1.01	-.39
Exp. per H.S. Pup. in Dist.	(64)	3.82 1.35	(17)	2.70 1.64	2.58*
Cadre Occ. Lev.	(97)	2.48 1.31	(41)	2.14 1.44	1.20

* significant at .01 level

Chapter 5

Discussion and Conclusions

This chapter discusses the achievements and limitations of the project, presents the questionsit raised, describes its dissemination procedure, and concludes with a set of recommendations for projects of this nature.

Achievements

Most significantly, the project produced a transportable training package which enabled teams of educators in at least 14 school districts to form, coalesce, and begin implementation of career education programs. Through its formative evaluation approach, the project clarified why the package was succeeding and produced multiple suggestions for improving it. Unlike most projects, its methods and materials can easily be adapted for use by others.

Development of collaboration around well-defined, targeted instruction was the central theme of the package. Throughout the project it was recognized that there were multiple aspects to be accomplished, and no one aspect could be developed at the expense of others. Therefore, early on time was allotted to recruiting and liaison even though the need for material development loomed large. As the project progressed, the creation of the evaluation modules and the evaluation instruments had to be speeded up and eventually curtailed to enable the printed materials to be ready for workshop delivery. Rehearsal for the first workshop had to be reduced to bring New Jersey into the project. During workshop delivery, evaluation had to be reduced to permit team building activities and to be altered to elicit cadre feedback. Finally, following the workshop, evaluation of the planning and implementation by cadre teams was further modified to accommodate their accomplishments at the workshop and the needs of the cadre teams attending the follow-up.

The cadre recruitment procedures and the liaison activity described in Chapter 3 highlighted our concern to make the project a collaborative effort. But the effort to build collaboration was sustained throughout. During the workshop our staff deliberately learned the name of each cadre, interacted with cadre during lunch and breaks, and tried to reinforce cadre regularly in module presentations and consultations for their understanding and enthusiasm for career education. At each workshop the staff emphasized that team planning was a major objective and at each, time was allocated for teams to plan and to present the results of planning. Moreover, recognizing that career education itself requires community-school collaboration, each workshop contained a module to initiate such collaboration. Not unexpectedly, anecdotal observations indicated that cadre were more appreciative of these three elements of the programs than any others.

In creating materials, the staff sought to develop concise, focused instructional materials which are sufficiently detailed to be used by others. From a task analysis of cadre needs reflected in the 1975-76 pilot phase of the project, it was judged that cadre would benefit from instruction in eight areas. Objectives were defined for these areas, the judgment about the areas and the relativity of the objectives was affirmed by our advisory committee, and then the staff wrote, critiqued, rewrote, and revised materials to achieve those objectives. At all times in this process, it was remembered that the concepts and materials to be presented were for local district educators to use either in understanding career education themselves or in teaching others in the district how to do career education. The ratings of the materials and unsolicited comments suggest that cadre were pleased with them. Several asked for extra copies and for transparencies and spirit masters to accompany the materials, but no one said the materials were of poor quality.

Comments such as: "Your interest in our feedback is flattering even though it is time consuming," "Your ability to adapt to us is impressive," "You certainly practice (evaluate) what you preach (evaluate)," reflect our second major accomplishment of adherence to, and demonstration of, a formative evaluation approach. Throughout, our approach was to systematically obtain data, process it, and make corrections indicated. As incoming data suggested corrections or need for enumeration, changes were integrated because they were expected. The process is easier to recognize in the adaptation and revision of modules. For example, in the first workshop, the self-awareness module did not include an explanation of the importance of learning principles of self-awareness, and its initial demonstration occurred out of earshop of many participants. By the second workshop, an explanation was added and the demonstration was centered to be audible and visible to all. For the third workshop a get-acquainted exercise was substituted for the demonstration to enable every cadre to participate and relate more meaningfully. And in the fourth workshop a critique of the get-acquainted exercise was added to insure that cadre recognized limitations to be followed in generalizing from single experiences. Each change occurred because of formal and informal reaction to the module.

While ongoing formative evaluation is more difficult to document in every aspect of the project, it did guide the other aspects of the project. For instance, initially it was believed that a plan could be obtained from each team to demonstrate their readiness to do career education inservice training. To guide planning and to enable evaluation of the subsequent plans, a set of planning forms was constructed. Cadre were shown how to use the forms in the workshop. During the initial workshop, however, it became apparent that a team would not be able to complete a realistic plan in the detail required by our forms. Consequently, a format for soliciting progress in planning over the course of the workshop was conceived and implemented in the last three workshops. This clarified where teams were in planning and how they might be helped in follow-up. A plan summary form was then constructed subsequent to the workshops for use in the follow-up.

The formative evaluation might have been even more beneficial if more resources and time had been available. Essentially, the project staff had to develop measures, collect data, process and interpret it, and then make corrections. The external evaluator made multiple invaluable suggestions about overall design and information to gather and how to interpret it. A larger budget, however, might have provided an expert in inservice instruction to critique the workshops and an expert in measurement might have located and/or built better cognitive outcome measures. The evaluations of the cadre at the workshops verified their moderately positive reactions, but they did not provide organized critiques of materials and presentations which could be directly translated into corrections.

Even if clearer corrections had been suggested, the time between modules would have made it very difficult to implement. Indeed, after the first workshop it was clear that revised approaches to assessing and to supporting cadre team planning would be beneficial, but the available staff time permitted only a start on corrections needed. Similarly, some of the evaluation data from the workshops could not be processed until after the workshops were over because staff had not the time for such processing.

Limitations

Every project has limitations. Some are due to the constraints of the enterprise. Duration time, for example, creates problems. Others are a consequence of limited resources. A few are errors of commission or omission. Our project had its share of limitations. They are discussed below.

First the timing of the project from July 1 to June 30 precluded our delivering cadre training before spring 1977, because instructional materials and measurement devices had to be constructed first. Cadre receiving our training in the spring were unable to begin inservice work in their districts until at least the fall of 1977, and, in many instances, the inservice schedule for all 1977-78 had been finalized before spring 1977. Hence, cadre had a formidable obstacle to their intended objective before they even started our training.

Second, cadre at the workshop did not have a chance to try out some of the instruction which they were supposed to give teachers. Nor did they receive feedback from the project staff on its quality. Our resources, the number of intended workshops, and the sizable expense of each extra day at a workshop for participants made it difficult to consider extending the workshop to afford such practice and review. Nevertheless, practice and feedback are necessary to increase the probability of cadre delivering instruction as intended.

Third, measurement of cognitive learning during the workshop was hampered by the lack of published tests of career education and by the limitations of the test items devised during the project. Cadre increased their understanding significantly, as measured on the project's tests, but some test items assessed content which was too specific for cadre to master during the workshop, while others were inadequate to test the workshop's broad objectives. Many items were essay or completion, and several cadre balked at the time required to complete them. To enable projects like this to have better tests, item pools approved by career education experts could be established for particular career education objectives. Projects could then draw items from the pools corresponding to the objectives to which they were instructing.

Fourth, cadre did not have an opportunity to review workshop materials or to give direct input into their content until the start of the workshops. Although some cadre were visited by the project manager in their district's recruitment, they were not provided a form for providing formal needs assessment data. The limited duration of the project forced a tight schedule, resulting in the materials production being completed only one week before the first workshop, and limited staffing precluded dispatching that material to other sites before those workshops. (All staff were involved in delivery of the workshop in Los Angeles and then debriefing and preparation for the next workshop.) Nevertheless, several cadre noted that earlier possession of materials would have facilitated their learning.

A fifth limitation was inability to assure that cadre had read the modules before their delivery. The tight presentation schedule precluded cadre from reading materials at the workshops, and the need of many to do work connected with their teaching and administrative assignments during the evening reduced their opportunity to do project tasks at that time. The delivery of each module assumed some familiarity with the content, and to be meaningful, modeling required familiarity with the material. One possibility might be to have cadre turn in progress tests on the module before its delivery. In any event, there is need to alert district people to these kinds of homework tasks so that participants can arrange to do them during the period of the workshop.

A sixth limitation is lack of a communication network which can support cadre follow-through and enable cadre teams to share their experiences and concerns with each other. Our project assisted people from one locale to come together around one regional career education leader identified by the State Department of Education, but it did not have the resource to build linkages across states or even to aid the four site coordinators in building up the local network which started. Goodlad (1977) has indicated that networks among innovators are promising structures for sustaining innovation, but the resource and duration of our project precluded our creating such a network. Possible solutions to the problem include: sponsorship by the Career Education Office of such a network for district career education teams, sponsorship of the network by a professional organization such as the Association of Secondary School Administrators, sponsorship of the network by a center such as the Center for Vocational and Technical Education, or sponsorship of the network by a foundation in a fashion similar to /I/D/E/A/'s League of Schools.

The seventh limitation concerns lack of model programs and model practices. It stems from insufficient project resources and the state of the art of career education. For example, June 14, 1977 testimony on the U.S. Senate Career Education Bill of 1977 was sharply critical of career education because of the lack of model programs. Currently, the literature provides no concise description of a model high school program exemplifying infusion, a concept which has been applied to career education only within the last two or three years. Although one model or even several different ones would be valuable to guide planning, our staff lacked the resources to locate and then describe a model program. Many programs are noted in the literature, but their descriptions are too general to be of use, or their materials are so extensive or so personalized that one cannot grasp the essence of the program without intensive examination and even direct visitation. Similarly, concise, clearly defined, objective-targeted infusion practices with construct validity are only now being published. Our extensive review of literature and practices produced only 32.

An eighth limitation stemmed from not using the resources of the advisory committee and other volunteer resources fully. The obstacles were time and a small staff. If the project had employed another full-time professional person, it might have been possible to obtain free help from large corporations. They might have created audiovisuals to accompany and complement the instructional materials, furnished drama instructors to coach our staff in delivery of the modules, and even furnished industrial trainers for aspects of the program. Also, it might have been possible to have secured financial underwriting of workshop luncheons or even full four-day and night workshops at a retreat site. More modestly, time or increased staff would have permitted soliciting detailed comments on modules and incoming results from the advisory committee members. These could have been included in the formative development of the materials and procedures. Unfortunately, the staff of one full-time professional (manager) and one part-time (director/investigator) professional was insufficient to secure such assistance and perform the other duties.

Questions Raised

The conduct of the project and the results obtained raised several questions which should be considered by those undertaking similar projects in the future. The questions are noted below.

1. Should the workshop be continuous or meet weekly or monthly? How long should it be?

These two questions also arose in the course of the 1975-76 project. In regard to the first question, it appeared that the cadre needed to work together for two days on career education before they started to coalesce as a team. But whether an extended workshop should be continuous is not clear. The necessity of private review of concepts and information gathering within the home district argue for discontinuity. In regard to length, several cadre noted that a preliminary meeting would have helped. Others wanted more demonstrations of materials and methods and more planning time. Our coaching module was not delivered, and during this year, few cadre had a chance to experience the task of direct inservice. That experience, especially in view of the cadre's limited experience in leading inservice, will probably prompt requests for further inservice. Of course, a longer workshop means extra costs. Perhaps requiring cadre to read and to be tested on existing materials without benefit of presentation would enable more demonstrations and more involvement exercises to be added.

2. Who should comprise cadre teams? Should every team member attend every workshop session?

Teams need an administrator to afford them credibility and access to district decision making. They need teacher representation, and may need expertise in career development. Others required on the team and how much of the workshop different team members should attend are not clear. Perhaps teams need the district inservice specialist, a member of the school board, PTA representative, or a business/industry representative. Very few of the project's cadre felt these persons in their district knew about their participation in the workshops. In creating teams, it must be remembered that an important characteristic of cadre teams is that its members function as leaders and doers. They are not advisory groups. Consequently, membership requires substantial commitment. Irregardless of who is on the team, our data suggest that team follow through depends primarily on the support for the team which the district will provide.

3. How should staff function in consulting: as facilitator or expert on resources?

During the workshop the project staff offered themselves as consultants to district teams. Each was careful not to draw attention from the team's leader or to suggest a direction other than the one desired by the team. In the role, the staff members limited themselves generally to giving information about materials and to suggesting alternative ways of doing what the team was planning. When the plans were presented, the staff clarified points of a team's plan, encouraged cadre from other teams to react to a team's plan, and accentuated and reinforced parts of the plan which were particularly emulatory. At the follow-up session, the staff performed essentially as they did at the closing workshop session, excepting that they provided more structure in order to insure that the teams covered elements of their plan more thoroughly.

The effectiveness of this consultation was not measured. Comments by some cadre suggested that they would have appreciated recommendation about specific materials and specific resources from our staff and/or cadre from other districts. They would have liked to review the tactics which they and others were anticipating using. One district, Pasadena, scheduled a review session of their planned actions with the cadre professional staff and asked reactions about the plan and suggestions for speakers and materials. Perhaps this latter consultation role needs to be performed after the group workshop through visits by the staff to the teams at their work sites. During the workshop, teams' might work independent of project staff. The staff could use the time to amplify module instruction by working with individual cadre in a tutoring role or by observing individual cadre demonstrate their presentation of aspects of modules and by then offering feedback. An alternate role might include provision of feedback on each team's cohesiveness, along with suggestions for improving cohesiveness. Such a role would complement the suggested changes in the Inservice Planning module.

4. Is the workshop experience in toto more meaningful than the sum of learning from the modules and planning sessions?

Satisfaction with the total workshop and expected follow-through related to district support of career education nearly as much as they related to satisfaction with modules. The respective variances appeared to be additive rather than overlapping. By inference one would expect that participating in a productive district team would be a means for heightening a cadre's percpetion of district support, or at least it would enable the cadre to feel more able to obtain district support. It seems reasonable, therefore, that the focus on building district teams during the workshop contributed to the follow-through. However, it is not clear how much it contributed or whether more or less emphasis on team building is necessary or how much other modules contributed.

Cognitive growth in the modules was only minimally related to overall satisfaction and not at all related to expectation of follow-through. The lack of relationship may be due to the weak cognitive tests, or it may be due to the need for more time on some modules and deletion of other modules. Cadre comments to the modules occasionally suggested additions, but there was no clear indication of alternate material to be covered. Certainly, the nature of the cadre's task and the literature suggested the modules were properly targeted. The currently available measures, the same workshop format for every cadre, and the absence of case studies of participants prevent us from ascertaining the relative contribution of particular modules to expected follow through. Future studies should include individual case studies and stronger cognitive tests in order to produce more definitive hypotheses about the effects of workshop elements.

Dissemination

There are two elements of the project to be disseminated: (1) the instructional materials, strategies, and evaluation measures and (2) the method of developing functioning district teams. The workshops themselves were a major vehicle for disseminating the materials. In the workshops a method of delivering the materials was modeled and then discussed with cadre in terms of how they might alter delivery. Cadre were encouraged to reproduce all or part of the materials, and follow-up indicates some have already begun dissemination as intended. The original workshop materials are being sent to the director of career education in each state along with this report. It is hoped the materials can be revised in accord with recommendations in this report, and they will then be offered to commercial publishers for publication and dissemination through their extensive marketing departments. The materials are also being sent to the ERIC for dissemination. Efforts will be made to present the materials and effects of using them at conventions likely to be attended by career educators.

If the next phase of the project is funded, several additional workshops will be held throughout the United States. If funding is not forthcoming, the staff of the Cadre Project will be able to conduct workshops on a consulting basis.

The primary vehicle for disseminating the method of developing the cadre teams is this final report. It is being sent to every state director of career education, and efforts are being made to use it as a basis for writing articles and papers for journal publication and professional meetings. Current funding does not provide resources for article preparation, but the authors expect to find time to prepare such reports during the coming year. The project was not intended to be a laboratory test of the team building approach, but the explicitness of its methods and the apparently favorable outcome should permit other investigators to replicate the team approach and consequently extend our knowledge of its operation.

Recommendations

This is the completion of the second year of the senior author's involvement with the task of equipping district personnel to offer inservice in career education. The tangible results and intangible impressions are many, but from them emerge several strategies to follow if such a project is to be extended or repeated. They are presented below in the form of recommendations.

1. Secure enough resources for the project or reduce the project to be commensurate with available resources.

This phase of the project suffered a lack of professional personnel. There was a full-time manager; the junior author, who maintained liaison, set up meetings and arranged travel, developed materials, supervised financial accounting and construction of cognitive tests, and delivered workshops and follow-ups. Th senior author was employed 33% time for nine months and full time for three summer months. He maintained a 4/5 teaching load and full student advisory and school service load during the academic year. His project duties included overall organization, normal liaison of a director, recruitment and supervision of staff, extensive development of instructional materials and supervision of test development, delivery of workshops, organization of evaluation, data analysis, and organization and writing of the final report. Completion of the project required the director to spend far in excess of the time allotted on the project, including foregone school holidays, weekends, and one unpaid month following termination of the project.

The project was fortunate in having a dedicated research assistant willing to travel extensively. It also secured the assistance of two work study students in a Counseling specialization for help in test construction and collection/presentation of evaluation data. The assistance provided by these three people more than compensated for the extensive time given to their training and supervision. The limited professional personnel, however, reduced liaison with advisory members and other possible helpers, limited the quality and quantity of materials, prevented identification of alternate measures and instructional strategies, and forced the two authors to work under continued strain over the course of the project.

2. Systematically secure the commitment of participating districts to support both the training of cadre and their subsequent inservice efforts.

In this project, systematic contact was established with states and districts. The project manager made it clear to district representatives that they should participate only if they would send 12 required teams for the four days of training and only if they planned to support the team following training. The regression analyses of the satisfaction and expectation scores show the importance of district support to the workshop participants.

Most teams developed plans and were following through in the workshop because they recognized their district's support. In Los Angeles, where time constraints interfered with securing firm commitments, the project was not as successful. Consequently, project directors should make it clear at the outset that district commitment is critical and that the workshop will not be delivered to cadre from more supportive districts.

This position may delay serving districts which are considered "most in need," but experience suggests that cadre from such districts will not find the workshop powerful enough to change things on their own. Indeed, the project directors are likely to have more leverage in securing such districts for support for cadre. By their firmness in serving only districts that are committed, project directors will graduate more successful cadre. This performance will show that the program is beneficial and the evidence will be a powerful incentive for districts "most in need" to provide the support needed for their cadre to succeed.

3. During the workshops, focus the available resources and time on teaching the framework of the program and on teaching the main elements necessary for proceeding within the framework. Participants will master detail later if motivated during the workshop. Don't get stalled or distracted by covering too much too quickly!

This project offered cadre with a comprehensive understanding of career education and an opportunity to coalesce into workgroups committed to offering their districts leadership in career education.

Some participants wanted to hear more from representatives of other districts. Our experience suggests that some colleague interchange is helpful if the colleague knows explicitly what the audience wants to learn and if the workshop instructor can integrate the commentary into the framework. Otherwise the exchanges quickly become rambling and distractive.

Four days is a relatively short time for training. It is unrealistic to expect educators with many responsibilities to be able to get acquainted with new colleagues and to become functional teams working on new ideas unless several days of several hours each are allotted for coalescing. Demand for detailed technical learning during this period may easily create anxiety which will disrupt team formation. By focusing on a framework and broad concepts, this project averted such anxiety.

4. Adhere to a formative evaluation approach.

In any new project, corrections will be necessary. Formative evaluation provides for collecting data on instructional progress as the instruction is occurring. The information obtained then enables corrections to be made before instruction ends.

In planning a formative evaluation, budget enough time to collect, process, and interpret data. Then add the time needed to make adjustments in instruction. In considering time requirements, consider carefully the questions to be answered and the kinds of data to answer them.

In our project, participant ratings of modules helped to verify our impressions about the tone of the workshop. The ratings of content, delivery, and utility differed significantly from each other, but even coupled with the occasional comments by participants, these evaluations weren't especially useful in pinpointing the strengths and weaknesses of the materials or the presentations. Likewise, the final satisfaction rating verified that the project was well received, but the items were so highly intercorrelated that one item would probably have substituted for the seventeen. When we repeat the workshops, therefore, we shall have an external evaluator who is expert in workshop presentation and well acquainted with the purpose of each module furnish detailed criticism of each module. The workshop audience, in contrast, will only be asked to rate their oeverall satisfaction with particular modules and their overall satisfaction with the workshop as a whole.

In regard time for correcting instruction, our project would have profited by adding two to three weeks between workshops. Presenters require time to recognize necessary corrections and practice consequent changes. Extra time would also have allowed some changes in materials.

5. Require teams to create plans during the workshop and afford them adequate time to report and comment upon the progress of one another's planning.

In this project, the requirements of preparing a Career Education inservice plan for the district and of presenting a progress report on the planning helped the teams on their task of becoming leadership groups. This enabled many participants to see their need for a comprehensive understanding of career education and it enabled team members to indicate the various leadership contributions which they could make. Moreover, it is hypothesized that the involvement of individual cadre in spelling out next steps contributed to the apparently high retention of cadre on the teams indicated through follow-up.

6. Finally, support the local leadership in all aspects of the project.

A project such as this one relies on extensive cooperation to get under way and is dependent even more on ongoing cooperation for its purpose to be realized. Their guidance is invaluable in identifying and screening participants. When the project is over, they will probably still be in leadership positions, and as much, will support some of what the project initiated.

In this project, site coordinators provided very valuable assistance in identifying and screening cadre teams and in making workshop arrangements. Perhaps, most important, however, each coordinator offered to cadre teams the possibility of continued local sharing of experiences relative to career education through his or her auspices.

Conclusion

Following a formative evaluation strategy, Project Cadre developed a set of transportable instructional materials and strategies and organizational procedures, tested these in four parts of the U.S., found the materials and procedures moderately effective, and identified multiple refinements. At least 12 of the 24 full teams in the workshop were moving to implement career education inservice within 60 days of the close of the workshop. Cadre participating in the workshop evidenced significantly increased understanding of career education and moderate satisfaction with the experiences and materials. Suggested refinements covered instructional materials and strategies and organizational procedures. As expected, satisfaction with the workshop and expectation to follow through on the workshop was significantly related to perceived home district support of career education and the district team.

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Appendix A

SAMPLE LETTER OF INVITATION TO STATES

UNIVERSITY OF CALIFORNIA, LOS ANGELES

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DEPARTMENT OF EDUCATION
GRADUATE SCHOOL OF EDUCATION
LOS ANGELES, CALIFORNIA 90024

September 21, 1976

Mr. Alexander Brown
Coordinator of Career Education
Division of Pupil Personnel Services
Department of Public Instruction
10th Floor, 120 West Market St.
Indianapolis, IN 46204

Dear Mr. Brown:

This is a first step in our search for states and regions-within-states which have an active interest in career education for middle and high school teachers and students. Our hope, as we continue a program piloted during 1975-76, is that state coordinators of career education will assist us in identifying regions which would benefit from the services we have been funded to offer.

We are Project Cadre, a national program of development and training which intends to help middle and high school teachers from the East, South, Midwest, and West "infuse" or integrate career education concepts with regular classroom instruction.

Funded by the Office of Career Education, of the Department of HEW, we decided to contact state coordinators as recommended by the agency's director, Ken Hoyt, and our project's monitor, Gerry Elbers. Our staff has identified your state as a possible training site. The next step is to verify your state's interest in our project and to identify a region within your state (a cluster of three or four school districts) where our materials and training might prove particularly valuable.

The one-page attachment entitled "Project CADRE" describes the purpose, scope, and intended outcomes of our efforts. Please refer to the attachment before reading on.

Assuming your state is interested in the development of career education programs at the middle and high school levels, we would like to ask your cooperation, first, in identifying regions within the state where the participation of a cluster of school districts would be desirable and available and, second, in identifying a site coordinator within that region with whom we could work in setting up a CADRE workshop.

States which express their interest in working with us will be rank-ordered by the project's Advisory Committee according to the degree to which they meet that committee's criteria for participation. We will inform all state coordinators who participate of the selection process.

Other than verifying the state's interest and identifying regions within the state where training is needed and desired, the critical task we are asking of the state coordinator is the identification and referral of a site coordinator. The site coordinator can be any teacher or administrator from a district within the tentative training region who has the resources and interest to help our project staff identify and recruit school districts and training workshop participants. (See below)

School districts which participate should be willing to satisfy two conditions:

1. Support a collaborative approach to the infusion of career education with regular classroom instruction. That is, support the notion that career education "infusion" is not the sole responsibility of the classroom teacher, but of the classroom teacher in combination with the principal, the guidance function, curriculum developers, parents, community representatives, and other teachers.
2. Provide the opportunity for CADRE, or training teachers, who return from the four-day workshops to set up and conduct inservice training for a representative number of regular classroom teachers. Lacking this opportunity, the benefits of the CADRE workshops can be expected to be lost for the participating districts and their students.

The CADRE workshop training and materials are provided free, but there is a cost to participating districts. Within the training region, the workshops will be conducted for four days at a central location. Depending on distance from the district, overnight accommodations may be preferable. The district would also be responsible for the released time cost for personnel who leave the classroom to attend the four days of training sessions. Since each district is expected to nominate only four to seven CADRE, or training teachers, the cost to the district should be minimal.

We hope you can help us move forward with our site selection process. We have provided a short form, "State Coordinators and Site Selection," to speed the process. Please fill it out and return it to us at your convenience, but not later than October 8. If you have questions, call (213) 825-5621.

NOTE: Site coordinators will receive a $400 consultant fee.

Your cooperation in this matter will be highly useful to us and most appreciated. Whether your state participates or not, we will advise you of our eventual training schedule and invite you to join us at any time you prefer.

Cordially,

Charles Healy

Charles Healy
Associate Professor
Principal Investigator

James Quinn

James Quinn, Ph.D., Education
Project Manager

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Project CADRE

Project CADRE is a national program of development and training which intends a collaborative approach to help middle and high school teachers "infuse" career education concepts with regular classroom instruction. Funded by the Office of Career Education, of the Department of HEW, and housed by the Division of Vocational Education at UCLA, the project during the 1976-77 academic year will develop career education training modules for the middle and high schools and will conduct regional workshops in the East, South, Midwest, and West and including selected school districts which express an active interest in career education. The project is a continuation of a 1975-76 EPDA project which conducted pilot workshops using new career education materials.

The project intends to benefit a large number of teachers and students through a ripple effect. CADRE refers to a core of 80-100 training personnel, including teachers, administrators, and specialists, and representing the four regions of the country. These training personnel, or CADRE, will participate in an intensive four-day workshop designed to upgrade their knowledge and skills in several topic areas of career education, and emphasizing self-knowledge, planning and decision-making, and knowledge of careers and occupations. The CADRE, in turn, will be expected to train a representative number of regular classroom teachers in their respective districts. The teachers, with the support of school and community representatives, will be expected to infuse or to integrate their career education training with the regular classroom instruction in the many subject areas, such that the great majority of students in the represented districts will be better prepared to associate work, jobs, and careers with their day-to-day classroom experience.

The 1976-77 training program will attend primarily to the training needs of CADRE, but will include a follow-up intended to assess the progress of teacher training and to identify the training needs of regular teachers not attended to in the regional workshops. The eventual goal is positive change in the knowledge and skills of the student populations and a research study of its significance.

The CADRE training modules are intended to be competency-based and transportable (replicable), yet adaptable to regional/community needs. Measures of training objectives will be developed and validated and will be used as part of the project's evaluation.

Project CADRE

"State Coordinators and Site Selection"

State:_______________ State Coordinator:____________________________

Please check or complete where appropriate:

1. The state would be interested in joining Project CADRE. ☐
2. I am NOT able to identify regions within the state where CADRE training would be desirable and useful. ☐
3. I can identify a training region but NOT a site coordinator. ☐
4. Identify region(s) and districts you feel would be interested in CADRE training.

Region:____________________ Region:____________________

Districts:____________________ Districts:____________________

5. Recommend Site Coordinators for each region identified:

Region:____________________ Region:____________________

Site Coordinator:____________________ Site Coordinator:____________________

Address:____________________

Phone:____________________ Phone:____________________

6. I have contacted the site coordinator(s) I have recommended, and the person expects to be contacted by Project CADRE. ☐
7. Comments:____

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DIVISION OF VOCATIONAL EDUCATION
LOS ANGELES, CALIFORNIA 90024
Project CADRE
1003 Wilshire Boulevard
Santa Monica, California 90401

October 25, 1976

Dr. Lee Bowen
Supervisor of Career Education
Prince George's County
Board of Education
Upper Marlboro, Maryland 20870

Dear Lee:

As a result of our October 25 telephone conversation, I'm sending you materials which should give you a more complete description of our career education infusion project. The project is aimed at the high school grades, all subject matter disciplines.

Enclosed is a letter which we have sent to our regional site coordinators. We are anxious to service the Maryland area, and the larger the service area the better for long-term dissemination, but I realize you may not be able to participate.

I have arranged to be in your area on Thursday and Friday, November 11 and 12. At that time I could meet with district and school level planners for a thorough discussion of the benefits and expectations related to Project CADRE. That doesn't give you much lead time to arrange meetings with district and school representatives, but whatever arrangements you prefer I will gladly accommodate. Costs to participating districts are limited to transportation to the workshops and released time for training and, perhaps, subsequent implementation.

We are taking a competency-based approach to the development of our training sessions, and we are planning what we hope will be an innovative, interesting workshop design. I can describe it in greater detail in Houston.

Any immediate questions, call me at 213-825-5621. Otherwise, see you in Houston and I hope our efforts can be mutually supportive this year.

Cordially,

James Quinn

James Quinn, Manager
Project CADRE

JQ:cm

Enclosures

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DIVISION OF VOCATIONAL EDUCATION
LOS ANGELES, CALIFORNIA 90024
Project CADRE
1003 Wilshire Boulevard
Santa Monica, California 90401

TO: Regional Site Coordinators

FROM: James Quinn, Manager, Project CADRE, UCLA

DATE: October 22, 1976

RE: Project CADRE Planning Trips

We are pleased that you will serve as our project's site coordinator for your region. Without you, our trip to your area would become so much more complicated, so much less coordinated.

The attachment indicates a range of services you might provide for us. We can discuss each in detail during the upcoming planning sessions. I'm hoping our planning sessions with the districts will prove useful for all of us.

As I mentioned by telephone, the collaborative approach is considered important, not only for arranging the workshops, but for the inservice and implementation which should follow. An ideal planning team, for each participating district, would include the superintendent, the director of instruction, director/coordinator of career education, principals of participating high schools, and a representative of the training Cadre. I realize that setting up district meetings of this nature is difficult, so I appreciate the complications you might face. A one-hour meeting would be sufficient.

I'll contact you again by telephone prior to November 5 to verify my arrival time in your area. Any questions, call me at 213-825-5621. And I do hope to meet you at our project's hospitality breakfast in Houston.

Cordially,

James Quinn

Enc.

JQ:cm

Services Site Coordinators might provide Project CADRE:

1. Identify districts, participants, and a regional training site.
2. Arrange planning sessions at district level between Project CADRE director and district/school officials.
3. Recruit districts and participants for 4-day Cadre training workshops.
4. Serve as liaison between district participants and Project CADRE.
5. Announce workshops to participating districts/participants.
6. Assist districts/participants in preparation for inservice.
7. Secure/arrange training site.
8. Help coordinate transportation to training site for participants and Project CADRE staff.

Consultation Fee: $400

Project CADRE

Project CADRE is a national program of development and training which intends a collaborative approach to help middle and high school teachers "infuse" career education concepts with regular classroom instruction. Funded by the Office of Career Education, of the Department of HEW, and housed by the Division of Vocational Education at UCLA, the project during the 1976-77 academic year will develop career education training modules for the middle and high schools and will conduct regional workshops in the East, South, Midwest, and West involving selected school districts which express an active interest in career education. The project is a continuation of a 1975-76 EPDA project which conducted pilot workshops using new career education materials.

The project intends to benefit a large number of teachers and students through a ripple effect. CADRE refers to a core of 80-100 training personnel, including teachers, administrators, and specialists, and representing the four regions of the country. These training personnel, or CADRE, will participate in an intensive four-day workshop designed to upgrade their knowledge and skills in several topic areas of career education, and emphasizing self-knowledge, planning and decision-making, and knowledge of careers and occupations. The CADRE, in turn, will be expected to train a representative number of regular classroom teachers in their respective districts. The teachers, with the support of school and community representatives, will be expected to infuse or to integrate their career education training with the regular classroom instruction in the many subject areas, such that the great majority of students in the represented districts will be better prepared to associate work, jobs, and careers with their day-to-day classroom experience.

The 1976-77 training program will attend primarily to the training needs of CADRE, but will include a follow-up intended to assess the progress of teacher training and to identify the training needs of regular teachers not attended to in the regional workshops. The eventual goal is positive change in the knowledge and skills of the student populations and a research study of its significance.

The CADRE training modules are intended to be competency-based and transportable (replicable), yet adaptable to regional/community needs. Measures of training objectives will be developed and validated and will be used as part of the project's evaluation.

CADRE TRAINING MODULES

1. Planning an Inservice for Career Education. The module describes a performance-based approach to program development from needs assessment through evaluation. The relations between components of the performance-based approach are identified, and training activities are designed to give Cadre a practical familiarity with each step.

   The module includes a brief description of a management objectives approach to planning for workshops. Cadre complete the module by developing a plan to conduct a workshop in the local district.

2. Increasing Career Awareness through Infusion. There are several important components of this module. One is teaching students ways to gather and process information about work, occupations, training, and careers. The value and importance of this is another component. Another is classification of work by subject and career area. (Characteristics of different careers as both relating to and differing from school and other non-work activities are dealt with, as are advancement and changes in careers.) Strategies for infusing these components into regular classroom instruction are suggested, and some exemplary infusion practices taken from the literature are appended.

3. Promoting the Planning and Decision-Making Abilities. This module demonstrates a method of teaching key concepts in planning and decision making. The method was derived from Career Counseling for Teachers and Counselors, by Charles C. Healy and is based on certain principles and a general stepwise procedure. The steps are: (1) specify your goal; (2) figure out alternative ways of achieving it; (3) examine the alternatives; (4) select an alternative; (5) carry out the alternative; and (6) evaluate the results. The importance of learning planning and decision making through experience is stressed. A set of strategies for infusing these concepts into teaching is provided.

4. Promoting Self-Awareness through Career Education Infusion. This module is based on the idea that teachers of all subjects can structure their instruction so that students learn about themselves and recognize their achievement even as they are mastering the subject. The module defines essential concepts and principles related to self-awareness and self-confidence and gives examples of practices exemplifying their infusion. Activities and discussion are used as vehicles for eliciting from the cadre some of the content of the module.

5. Promoting School and Community Support for Career Education. This module presents a panel of representatives from business, industry and service groups in the community discussing what they can offer to the school's career education program and the concerns they have in becoming involved in student career development. Each panel member makes a presentation and then the floor is opened for a question/answe dialog period. Other methods of identifying community support and resources are listed. The importance of effective and meaningful collaboration is stressed.

6. Evaluating Your Inservice. Evaluation is presented in the context of the total inservice training program. The module includes the selection and development of measures of inservice training objectives, data collection procedures, and use of evaluation information by the inservice trainer.

7. Consulting with Teachers in Training. The module provides career education cadre with principles and procedures proven useful in problem-solving. Cadre learn and practice a systematic problem-solving procedure, the guided-inquiry method, as well as a number of basic behavioral principles applicable to problems of learning, motivation, and planning.

   The module encourages Cadre to teach teachers they are training in career education infusion to use the same problem-solving procedures and principles they have demonstrated during inservice.

8. Infusion and Career Development: Theory and Practice. One of the main components of this module is the concept that career development can be the rationale of career education. It is a comprehensive, collaborative theoretical framework in which to view career education; also, it is closely linked to changing social/ economic demands. The other main component is the concept of how to infuse the theories behind career development and career education into classroom practice. Infusion of career education into the classroom involves applying certain principles of career education into teaching on an ongoing basis. To accomplish this would take some additional planning time on the part of the teacher at first. Infusion of career education should be related to and enhance the subject being taught.

CADRE BENEFITS AND EXPECTATIONS

Cadre Contribution	District Contribution
1. Theoretically integrated materials to use in training teachers in CE infusion	Release inservice team consisting of one district level person for 4-day workshop and 1-day follow-up; team should know & optimally have experience in CE
2. Systematic development of district team and construction of district inservice plan	Guarantee that inservice team will be able to secure released time to deliver training so long as our training is considered quality training
3. Five days of training in use of these materials	Guarantee cooperation in evaluating inservice team's efforts and possibly in evaluating impact on students
4. Consultation via telephone in use of materials as long as project is operable	Confer with project staff on appropriate objectives and monitor district's achievement of them.
5. Follow-up evaluation	

APPENDIX B

PROJECT CADRE ADVISORY COMMITTEE

Donald Achzinger
Director, Career Education
Newport -Mesa Unified School District
19th and Newport Blvd.
Newport Beach, CA 92663

Dr. David Allen, Associate Director
Division of Vocational Education
University of California
405 Hilgard Avenue
Los Angeles, CA 90024

Dr. Melvin L. Barlow, Director
Division of Vocational Education
University of California

Mr. William Bradfield
Parkman Junior High School
20223 Schoolcraft St.
Canoga Park, CA 91306

Dr. Vernon Halcromb
Director of Vocational Education
Pasadena City College
Pasadena, CA 91106

Dr. Charles Healy
Project Director
Associate Professor of Counseling
University of California

Ms. Dolores Diehl
Pacific Telephone
1010 Wilshire Blvd., Rm. 516
Los Angeles, CA 90017

Ms. Maureen Jensen
EPDA Fellow, Iowa
Division of Vocational Education
UCLA

Mr. Gene Kocol
Los Angeles City Schools
450 Grand Ave., Rm. H-258
Los Angeles, CA 90012

Dr. Paul Peters
Manager, Career Education Unit
State Department of Education
721 Capitol Mall
Sacramento, CA 95814

Ms. Linda Phillips
11757 Kiowa Ave., #7
Los Angeles, CA 90049

Dr. Harry Silberman
Graduate School of Education
UCLA

Dr. Robert Swan
Educational Psychology
California State University, Long Beach
Long Beach, CA 90801

Dr. David Taxis
Director, Career Education
Los Angeles County School District
Downey, CA 90242

Mr. Warren Valdry
Division of Vocational Education
UCLA

Ms. Ann Upton
Guidance, State Department of Education
721 Capitol Mall
Sacramento, CA 95814

Dr. Parker Foster
Division of Vocational Education
UCLA

APPENDIX C

Notes from Advisory Committee Luncheon
October 12, 1976

Paul Peters: Will the Cadre have resources to conduct workshops (released time)?

Dr. Swan: What kind of consulting service do we plan to provide?

Dr. Sorenson: We should definitely ask the districts, "Are you interested enough to provide money?"

Paul Peters: Some state people are not full time, we may never hear from them. He offered to help contact them.

Dr. Taxis: What other incentives could we provide besides money?

Paul Peters: The state has compiled a 300-page book of strategies.

Dr. Taxis: Are we going to help teachers evaluate?

Bill Bradfield: Had planned to use some of the modules from last year's project this semester.

Dr. Taxis: Materials for projects "done on a shoestring" often are not attractive. Asked Delores Diehl whether the Industry and Education Council might help with art work and reproduction of materials.

Delores Diehl: Yes, she thinks they would. Would like to see educators get away from a panel discussion type of format; would rather see them come to business, or cross-visiting between business and schools.

Dr. Sorenson: Some people feel that they pay taxes and don't see why they should educate kids.

Paul Peters: The state has conducted over 200 workshops and has not had any difficulty in getting people to come in from industry. Need to involve local people as much as possible.

Delores Diehl: Schools go to the same large companies over and over. Don't forget middle and small businesses. Suggests guide to how to use the Yellow Pages.

Dr. Barlow: Once business gets identified with a project, there is no limit to what they will do. Identify what industry and business can do, what they are willing to do, and then capitalize on those things that have educational value.

Don Achzinger: The first thing is to get a commitment (from the top) to the concept of career education.

Paul Peters: The state will not do a workshop unless the principal sits in on the planning; a top administrator and a board member should be present. Superintendent must handle the closing session, "Where do we go from here?"

Dr. Taxis: The first visit to a site might be coordinated with a meeting of a state school board association.

Paul Peters: Difficult to meet deadlines.

Dr. Healy: Could district evaluations be done by mail or phone?

Gene Kocol: Don't think so. The time span is too short.

Dr. Sorenson: If you pick small districts you can talk to administrators.

Paul Peters: In L.A. pick one attendance area.

Bill Bradfield: How many hours or days will the workshop run? Thinks 9:30 to 4:00 is too long; suggests more days, shorter hours.

Paul Peters: Their day is somewhat shorter. Two days is the maximum you can get from districts; may find not a lot of money is available for released time, or what they have has already been commited.

Dr. Barlow: Has had success with workshops beginning at noon and ending at noon the next day.

Paul Peters: Have you got a checklist for site coordinators? Ken Hoyt is leaning heavily on state coordinators because of the Houston conference, so they may not respond as quickly as we would like. Phone may be better than writing. Suggests contacting Dave Gesser (Jesser) Staff Development Committee (State Superintendent, NEA Bldg.), Chief State School Officers.

May want sites selected before Houston, so that a meeting with them can take place there.

Appendix D

MATERIALS SENT TO ADVISORY COMMITTEE PRIOR TO OCTOBER MEETING

UNIVERSITY OF CALIFORNIA, LOS ANGELES

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO SANTA BARBARA • SANTA CRUZ

DIVISION OF VOCATIONAL EDUCATION
LOS ANGELES, CALIFORNIA 90024

September 21, 1976

Dear

You are respectfully invited to serve as a member of the Advisory Committee for Project CADRE (a national training program intended to help middle and high school teachers "infuse" career education into regular classroom instruction) and to attend a kickoff business luncheon for project staff and advisors.

The luncheon will be held October 12, from 11:30 to 1:30, at the Fox & Hounds Restaurant, 2900 Wilshire Blvd., at the corner of Yale Street, Santa Monica.

Members of the CADRE Advisory Committee will be expected to provide the project's principal investigator and staff with theoretical and practical directions towards the development and implementation of the major project components: the development of career education training modules, selection of cadre training sites, the conduct of workshops, and the evaluation of project success. Nominees for the CADRE Advisory Committee are listed on Attachment 2.

The after-lunch business agenda of October 12 will consist of: verification of the pertinence of the proposed training modules, a rank-ordering of the modules as to their training priority, identification and selection of alternative training sites. Other matters may be discussed.

The CADRE Advisory Committee will meet at selected times through June 30, 1977. Committee members may also participate in the conduct or observation of training workshops as a matter of preference. If you have questions, telephone (213) 825-5621.

Your participation in this topical effort would be highly regarded. You can advise us of your interest and availability by completing the enclosed postcard and returning it to us as soon as possible and no later than October 1.

Cordially,

Charles Healy
Principal Investigator

James Quinn
Project Manager

JQ:em
Enc. (3)

Attachment 1

Project CADRE

Project CADRE is a national program of development and training which intends a collaborative approach to help middle and high school teachers "infuse" career education concepts with regular classroom instruction. Funded by the Office of Career Education, of the Department of HEW, and housed by the Division of Vocational Education at UCLA, the project during the 1976-77 academic year will develop career education training modules for the middle and high schools and will conduct regional workshops in the East, South, Midwest, and West involving selected school districts which express an active interest in career education. The project is a continuation of a 1975-76 EPDA project which conducted pilot workshops using new career education materials.

The project intends to benefit a large number of teachers and students through a ripple effect. CADRE refers to a core of 80-100 training personnel, including teachers, administrators, and specialists, and representing the four regions of the country. These training personnel, or CADRE, will participate in an intensive four-day workshop designed to upgrade their knowledge and skills in several topic areas of career education, and emphasizing self-knowledge, planning and decision-making, and knowledge of careers and occupations. The CADRE, in turn, will be expected to train a representative number of regular classroom teachers in their respective districts. The teachers, with the support of school and community representatives, will be expected to infuse or to integrate their career education training with the regular classroom instruction in the many subject areas, such that the great majority of students in the represented districts will be better prepared to associate work, jobs, and careers with their day-to-day classroom experience.

The 1976-77 training program will attend primarily to the training needs of CADRE, but will include a follow-up intended to assess the progress of teacher training and to identify the training needs of regular teachers not attended to in the regional workshops. The eventual goal is positive change in the knowledge and skills of the student populations and a research study of its significance.

The CADRE training modules are intended to be competency-based and transportable (replicable), yet adaptable to regional/community needs. Measures of training objectives will be developed and validated and will be used as part of the project's evaluation.

Attachment 2

Nominees for Project CADRE Advisory Committee

Don Achzinger
Director, Career Education
Newport-Mesa Unified School District
19th and Newport Blvd.
Newport Beach, CA 92663

Dr. David Allen
Associate Director
Division of Vocational Education
University of California
405 Hilgard Avenue
Los Angeles, CA 90024

Dr. Melvin Barlow
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Education
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Parkman Junior High School
20223 Schoolcraft St.
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Dr. Vernon Halcromb
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Pasadena City College
Pasadena, CA 91106

Dr. Charles Healy
Project Director, Associate
Professor of Counseling
University of California
405 Hilgard Avenue
Los Angeles, CA 90024

Dr. Kaare T. Jacobsen
Executive Manager
Industry Education Alliance
650 South Spring Street
Suite 1207
Los Angeles, CA 90014

Dr. Richard Harsh
Director, Educational Testing Service
2200 Merton Avenue
Los Angeles, CA 90041

Ms. Maureen Jensen
Project Staff, EPDA Fellow, Iowa
Division of Vocational Education
University of California
405 Hilgard Avenue
Los Angeles, CA 90024

Mr. Gene Kocil
450 N. Grand Avenue, Room H-258
Los Angeles, CA 90012

Dr. Paul Peters
Manager, Career Education Unit
State Department of Education
721 Capitol Mall
Sacramento, CA 95814

Ms. Linda Phillips
11757 Kiowa Ave., #7
Los Angeles, CA 90049

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Professor, Graduate School of Education
Educational Psychology
University of California
405 Hilgard Avenue
Los Angeles, CA 90024

Dr. Robert Swan
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Los Angeles County School District
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Associate Project Director, EPDA Fellow
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University of California
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Ms. Ann Upton
Guidance, State Dept. of Education
721 Capitol Mall
Sacramento, CA 95814

APPENDIX E

ABSTRACTS OF CADRE TRAINING MODULES

1. Assessing Infusion Needs. The needs assessment module is designed to develop an appreciation and understanding of needs assessment. Before the workshop, Cadre gather partial data on the needs of the teachers they will inservice. At the workshop they share their findings with colleagues, discuss key elements in the discrepancy model of needs assessment, identify the additional needs assessment data they must gather for their inservicing, and formulate and commit themselves to a plan for gathering it.

2. Planning an Inservice for Career Education. The module describes a performance-based approach to program development from needs assessment through evaluation. The relations between components of the performance-based approach are identified, and training activities are designed to give Cadre a practical familiarity with each step.

   The module includes a brief description of a management objectives approach to planning for workshops. Cadre complete the module by developing a plan to conduct a workshop in the local district.

3. Increasing Career Awareness through Infusion. There are several important components of this module. One is teaching students ways to gather and process information about work, occupations, training, and careers. The value and importance of this is another component. Another is classification of work by subject and career area. (Characteristics of different careers as both relating to and differing from school and other non-work activities are dealt with, as are advancement and changes in careers.) Strategies for infusing these components into regular classroom instruction are suggested, and some exemplary infusion practices taken from the literature are appended.

4. Promoting the Planning and Decision-Making Abilities. This module demonstrates a method of teaching key concepts in planning and decision making. The method was derived from Career Counseling for Teachers and Counselors, by Charles C. Healy, and is based on certain principles and a general stepwise procedure. The steps are: (1) specify your goal; (2) figure out alternative ways of achieving it; (3) examine the alternatives; (4) select an alternative; (5) carry out the alternative; and (6) evaluate the results. The importance of learning planning and decision making through experience is stressed. A set of strategies for infusing these concepts into teaching is provided.

5. Promoting Self-Awareness through Career Education Infusion. This module is based on the idea that teachers of all subjects can structure their instruction so that students learn about themselves and recognize their achievement even as they are mastering the subject. The module defines essential concepts and principles related to self-awareness and self-confidence and gives examples of practices exemplifying their infusion. Activities and discussion are used as vehicles for eliciting from the cadre some of the content of the module.

6. Developing a Career Education Center or System. The Career Center module focuses on designing, equipping and staffing a building career center. Cadre are stimulated to consider possible objectives of the center, its role in the total program, means of supporting it, and new career education materials and resources which might be available through it.

7. Promoting School and Community Support for Career Education. This module presents a panel of representatives from business, industry and service groups in the community discussing what they can offer to the school's career education program and the concerns they have in becoming involved in student career development. Each panel member makes a presentation and then the floor is opened for a question/answer dialog period. Other methods of identifying community support and resources are listed. The importance of effective and meaningful collaboration is stressed.

8. Evaluating Your Inservice. Evaluation is presented in the context of the total inservice training program. The module includes the selection and development of measures of inservice training objectives, data collection procedures, and use of evaluation information by the inservice trainer.

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   The module encourages Cadre to teach teachers they are training in career education infusion to use the same problem-solving procedures and principles they have demonstrated during inservice.

10. Infusion and Career Development: Theory and Practice. One of the main components of this module is the concept that career development can be the rationale of career education. It is a comprehensive, collaborative theoretical framework in which to view career education; also, it is closely linked to changing social/economic demands. The other main component is the concept of how to infuse the theories behind career development and career education into classroom practice. Infusion of career education into the classroom involves applying certain principles of career education into teaching on an ongoing basis. To accomplish this would take some additional planning time on the part of the teacher at first. Infusion of career education should be related to and enhance the subject being taught.

11. Career Education and the High School Student. "Characteristics Reflecting Career Maturity in Adolescents" presents the Cadre with a detailed explication of the accomplishments which theorists believe reflect maturity. The purpose of the module is to equip Cadre to distinguish between career education objectives for students based on research or theory and objectives rooted in tradition but without empirical or logical support. Exercises are provided to show Cadre how to translate accomplishments into performance objectives.

12. Practical Problems in Conducting Teacher Inservice. Even as teachers experience problems when moving from the workshop to the classroom, planners have problems getting to the workshop. Timelines break down, strategies don't work, and people refuse to go along.

    The module identifies some of the practical traps that await Cadre, offers some practical solutions, and encourages Cadre to hope the solutions work. Warns that some will not work. And hopes the Cadre will be able to grin and bear it.

APPENDIX F

LIST OF ORIGINAL MODULE OBJECTIVES

OBJECTIVES FOR NEEDS ASSESSMENT MODULE

Cadre will:

(1) describe a needs assessment plan for initiating inservice teacher training in their community which is cost efficient and which includes provision for: involving affected groups, establishing broad objectives, determining student/teacher competencies in relation to the objectives, ascertaining feasibility of particular inservice strategies, deciding on priorities, and reporting results;

(2) feel needs assessment is both an opportunity for involving people in career education and an essential task in inservicing;

(3) be able to list four arguments which justify needs assessment;

(4) define essential concepts such as random sample, multiple data source, delphi technique;

(5) collect initial needs assessment data pertinent to teachers and indicate the contributions of such data and the need of additional data;

(6) state four problems to be expected in assessing needs and at least one solution for each problem;

(7) describe a module for introducing teachers to the concept of needs assessment; and

(8) within two months, implement their plan for obtaining needs assessment data.

Draft
9/28/76

Module 2: PLANNING A TEACHER TRAINING INSERVICE FOR CAREER EDUCATION

Learner Objectives

1. The Cadre will graph the components of a performance-based program of instruction, i.e., needs assessment, performance objectives, objective-based tests, instructional materials/activities, implementation monitoring, enrichment, and evaluation such that the relations between the components are evident.

2. Given descriptions of instructional situations in which a classroom teacher has the opportunity to "infuse" career education with regular classroom instruction, but fails to do so, the Cadre will infer the training needs identified by the situation.

3. Given career education teacher-training tasks involving regular classroom teachers at various grade levels, the Cadre will use a grade level-specific developmental model of career education to identify the probable training needs of the teachers.

4. Given a list of teacher training needs in career education, the Cadre will develop from the list at least three measurable objectives.

5. Given a statement of a measurable objective for an infusion program in self-awareness, the Cadre will construct a measure which tests for mastery of the objective.

6. Given a set of career education objectives and an assortment of career education materials, the Cadre will reference the career education materials to the objectives for which they can be targeted.

7. Given a target date and the purpose of a career education training workshop, the Cadre will develop a management and operations plan which describes the functions to be completed prior to the workshop, including dates by which each function must be completed so that any dependent functions can occur.

8. The Cadre will list the following procedures as steps to be completed during the planning of an inservice workshop: identify the participants, secure the site, obtain approvals from authorities, announce the session, produce materials, train staff, conduct the workshop, and evaluate the workshop's success.

Draft
9/29/76

OBJECTIVES FOR CAREER AWARENESS MODULE

Cadre will:

1. State five aspects of work and training programs (requirements, duties, salary/cost, conditions, supply/demand) which youngsters should learn in order to make career choices.

2. Justify by argument that it is more important for a student to learn and to appreciate career information gathering and processing than to learn particular facts about occupations.

3. State three aspects of work/training (flexibility of hours, special groups employed, scholarship available, etc.) which are important to populations such as minority members, handicapped, and women who might have special career concerns.

4. Name a way of classifying workers by required training and indicate the number of workers in each group; describe Holland's occupational classification and indicate the numbers of workers in each category.

5. List five levels of knowing work/training programs such as reading, hearing, observing, simulation, doing, and describe the differences in information obtained at each level.

6. List four general characteristics of work which often distinguish it from general class activities such as: performed in groups, within well-defined parameters like forms, formats and time constraints, pursued for several hours, and redone until meets criterion.

7. List ten local resources including titles of people who can be involved in infusing career awareness into class instruction.

8. State differences in objectivity/accuracy of different information sources and write questions which would be used to test students' understanding of such differences within framework of different subjects.

9. List two practices of career awareness infusion for each major subject in the high school curriculum.

10. Distinguish practices which are career infusion from those that are not.

11. List five major occupations and five hobbies which are associated with each major secondary school subject.

12. Give four reasons why career awareness should be infused. They can use such evidence as statistical facts about college/non-college entry and female/male work participation and youth unemployment, community expectations, importance of information in career development.

13. State one change in work/training that a knowledge advance in each major high school subject is likely to produce.

14. Describe how to present the topic of infusing career awareness to teachers.

15. Distinguish major occupations on the basis of number of employees, earnings, education and skills required, and projected growth.

16. State four kinds of questions which can be used to measure students' career awareness.

17. Within three months, inservice teachers on infusing career awareness.

NOTE: A list of annotated references will follow each lesson, although the material pertinent to objectives will be in lesson ___.

OBJECTIVES FOR PLANNING AND DECISION-MAKING MODULE

Cadre will be able to:

(a) list the steps a person should follow in effective planning/decision making;

(b) define concepts important to decision making and planning such as: values, decision, plan, reliability of information source, feedback, brainstorm, contingency, alternative, risk, utility to chooser;

(c) judge whether a goal is sufficiently specific to choose among alternatives;

(d) judge whether the success criterion is sufficiently concrete for the chooser to know when she succeeds;

(e) given a problem in career planning or decision making, identify it and suggest methods of correcting it;

(f) list 7 school-related decisions/plans which students can make;

(g) describe 2 strategies for infusing decision making/planning into any major high school subject;

(h) give four reasons for infusing career decision making and planning;

(i) feel that decision making should be infused;

(j) feel able and willing to persuade teachers to infuse decision making;

(k) describe a method of showing teachers how to infuse career decision making/planning;

(l) write two questions within the framework of any major course which assess decision making or planning;

(m) within 3 months assist teachers in infusing career decision making and planning.

Draft
9/29/76

Objectives for Module on Self-Awareness

The cadre will:

1. List four reasons for infusing self-awareness/confidence.

2. Describe two methods of infusing self-awareness into each major high school subject.

3. Given a student deficit in self-awareness or confidence, describe an activity for alleviating it.

4. List four general ways of accuracy of self-knowledge, such as a) specifying attributes in more detail, b) obtaining feedback from varied kinds of sources, c) increasing one's experiences in regard to the attribute, d) relating one's assessment to particular observable outcomes in the manner of predictive validity.

5. Indicate why listing present or future roles increases self-awareness.

6. Define such essential concepts as self-awareness, self-confidence, principle, role, observable outcome.

7. Give two examples of self-awareness infusion practices for each major high school subject.

8. Describe how to introduce the topic of infusing self-awareness to teachers.

9. Specify eight principles of developing self-awareness and/or self-confidence.

10. Distinguish between self-descriptions which can be verified and those which cannot be confirmed.

11. Compare four questions, each of a different type, which can be used to measure a student's growth in self-knowledge.

12. Give inservice training to teachers on infusing self-awareness within three months.

Draft
9/29/76

Objectives for School/Community Support Module

1. Cadre will feel more enthusiastic and more willing to show teachers how to integrate community resources into their classroom career education.

2. Cadre will know more about how community resources can be integrated into career education infusion.

3. Cadre will increase their number of contacts for helping teachers to integrate community resources.

4. Cadre will increase their knowledge of the range of contributions made by business/industry to career education.

5. Cadre will be able to describe a module which can introduce the theme of greater teacher/community cooperation.

6. Cadre will be able to list eight actions to take in developing and sustaining community involvement in career education.

Draft
10/6/76

MODULE 9: COUNSELING WITH TEACHERS AND THEIR CAREER EDUCATION INFUSION PROBLEMS

Learner Objectives

1. The Cadre will define problem-solving as a systematic, replicable method for removing obstacles to long-range plans.

2. The Cadre will know the sequence of steps inherent in the cognitive-behavioral approaches to problem-solving.

3. Given descriptions of problem situations and the verbal cues and questions used by a counselor in a problem-solving approach to cognitive-behavioral problems, the Cadre will identify with 80 per cent accuracy any omitted or misplaced cues and questions.

4. The Cadre will explain the guided-inquiry counseling procedure, such that the method is characterized by its problem-solving steps and by its use of problem-related principles from the behavioral sciences to guide clients to testable courses of action.

5. The Cadre will generate at least three principles of learning, motivation, and/or planning which might guide teachers to a solution for given career education infusion problems.

6. Given a basic principle from the behavioral sciences, i.e., learning is facilitated by immediate feedback of results, the Cadre will select from a list of hypothetical infusion problems the problem for which the principle would be most appropriate.

7. The Cadre will implement the guided-inquiry counseling method as modeled, using verbal responses and cues consistent with the method's response categories with at least 80 per cent accuracy.

Draft
9/29/76

Objectives for Module on Theory/Practice of Career Education

1. Cadre will define career development, career, career maturity, correlational study, quasi-experimental study, career education, career education infusion.

2. Cadre will show that the concept of career development can be the rationale of career education.

3. Given the definition of career development, cadre will deduce four arguments for coordinated, ongoing intervention throughout schooling.

4. Given the definition of career development, cadre will deduce four arguments for infusion of career education into classroom instruction and for participation of community in such infusion.

5. Cadre will be able to specify operationally six indices of career maturity for junior and six for senior high school students.

6. Cadre will be able to state the empirical, logical, and theoretical supports for the construct validity of the career development concept.

7. Cadre will be able to list and refute arguments against the utility of the concept of career development.

8. Cadre will be able to distinguish career education from vocational education, life adjustment education, lifelong learning, work study, experiential learning, etc.

9. Cadre will be able to distinguish career infusion activities from other instructional activities.

APPENDIX G

EVALUATION SHEET

Module # _____ ID # _____

Please rate the value of this module, both the written materials, including exemplary lesson plan if any, and the delivery by responding to the four questions below. Use the comments section to furnish any other reactions to this.

Thank you for your rating. It will help us to know what to retain and what to improve.

1. After reading and observing the delivery of this module, I believe that my ability to deliver it to teachers in my district is

low		moderate		high
1	2	3	4	5

2. In my estimate teachers in my district would obtain the amount of benefit circled by reading and having this module presented to them.

low		moderate		high
1	2	3	4	5

3. The value of the module's written materials to me and the teachers I will serve is

low		moderate		high
1	2	3	4	5

4. The value of the presentation of this module in clarifying its ideas and demonstrating a way of presenting it is

low		moderate		high
1	2	3	4	5

5. Comments (possible improvements, other methods of delivery, other reactions, etc.):

APPENDIX H

PROJECT CADRE

- form for -

Description of Planning Teams' Follow-Up Activities

The questions on this form ask cadre teams to describe along certain dimensions the post-workshop activities engaged in by the team or by individual members of the team.

In answering the five questions below, please be as complete and specific as you are able.

1. Please describe in sequence what your team has done in the weeks following the Cadre workshop to develop/implement the career education concept in your district/school.

2. What steps have been your successes? Can you identify the factors that contributed to success?

3. What steps have turned out to be failures? What factors contributed to the failures?

4. Has any additional planning been completed? What action is planned?

5. Are you happy with your progress? Explain.

PROJECT CADRE

- follow-up form -

Site ______________________ District ______________________

	Implementation Step	Completed/Not Completed	Comment
1.			
2.			
3.			
4.			
5.			
6.			

	Implementation Step	Completed/Not Completed	Comment
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

PROJECT CADRE

- follow-up form -

Use the scale provided to rate each Cadre team on the items listed below.

1	2	3	4	5
Low				High

1. The team is cohesive. ________

2. The team has demonstrated its ability to formulate plans. ________

3. The team has shown its ability to put its planning steps into action. ________

Site: ________________

District: ________________

Rater: ________________

Date: ________________

PROJECT CADRE

FOLLOW-UP QUESTIONNAIRE

(Please print)

NAME ______________________ POSITION ______________________

DISTRICT ______________________ ID # (leave blank) ______________________

CITY & STATE ______________________

Part 1. For each of the 12 items below, circle the number which best describes your belief about the Cadre workshop now, after one or more months have passed.	Strongly Agree 5	4	No Opinion 3	2	Strongly Disagree 1
1. The workshop provided a clear framework which helps participants understand career education.	5	4	3	2	1
2. The workshop clarified what is fundamental for teachers to understand about self-concept, career awareness, and decision-making and planning in order to do career education in the classroom.	5	4	3	2	1
3. The workshop suggested organizational schemes which can be used to insure that a school has a total career education program.	5	4	3	2	1
4. The workshop helped me develop job interviewing skills.	5	4	3	2	1
5. The workshop motivated me to plan for the evaluation of the inservice and career education activities I will develop or use.	5	4	3	2	1
6. The pre- and post-tests and the progress tests will help me to evaluate the competency of teachers to do career education.	5	4	3	2	1
7. The workshop demonstrated a way of initiating teacher/community involvement in career education.	5	4	3	2	1
8. The workshop's emphasis on principles which can be used to develop self-awareness, information seeking, and decision-making and planning, along with exemplary infusion practices, will enable me to construct additional infusion practices.	5	4	3	2	1
9. The exemplary infusion practices will be useful to the teachers to whom I provide inservice.	5	4	3	2	1

	Strongly Agree		No Opinion		Strongly Disagree
10. The workshop clarified crucial aspects of program planning and development.	5	4	3	2	1
11. The planning forms distributed are too complex to use as the format for a district plan.	5	4	3	2	1
12. The workshop materials, presentations, and consultations did not make it clear how to use the planning forms.	5	4	3	2	1

Part 2. Please answer briefly as indicated.

1. As a result of the Career Education Cadre Workshop, did you see yourself as a member of a planning and/or training team?
Yes_____ No _____

2. Is your Cadre team still a real team? Yes_____ No _____

3. Does your Cadre team still include at least one high-level administrator from the district/school?
Yes _____ No _____

4. Have new members joined your team since the workshop? _____________________
If yes, please identify them by position: _____________________
____
____

5. Do you have a community representative as a member of your team, or does at least one community resource have an opportunity to influence your team's plans/decisions?
Yes _____ No _____

6. Is the Cadre approach to district/school level career education implementation (collaboration among a number of educators representing various district roles, training a small team of leaders/planners/trainers) an effective way to develop and implement career education infusion plans?
Yes _____ No _____
Comment:

7. Does your team have sufficient administrative support for its goals/activities in the local district/school?

Yes _____ No _____

If no, how can the needed support be gathered?

8. Does your team have board and community support? Yes _____ No _____

9. Does your team have a team leader? Yes _____ No _____

If so, identify his/her position: ________________________________

10. Has the team met since the Cadre Workshop? Yes _____ No _____

How many times? ____________________

11. In reference to the planning forms distributed at the Cadre Workshop, please check ( ) each appropriate statement:

_____ The team has used the forms to make plans.
_____ The team has not used the forms in planning, but has discussed the planning concepts listed on the forms.
_____ The team will probably use the forms in the future.
_____ The forms are too unclear.
_____ The forms are too complex.
_____ The forms are too impractical.
_____ The team is just not ready to engage in this kind of planning.
_____ The team needs more direction as to how to use the forms.

12. Does the team write down its plans? Yes _____ No _____

13. Have any members quit the team? __________ How many? ________________

Why ____

____

____

14. Has the Superintendent made contact with the team in any way? Yes _____ No _____

Comment:

15. Do you feel your team will ultimately succeed? Yes _____ No _____

Part 3. Recommendations for future Cadre workshops.

1. The following was not useful to me and could be deleted from the 4-day workshop:

2. The following would have helped me to plan for/develop career education inservice and should be added to the workshop:

3. I would have appreciated the following kinds of assistance from the Cadre staff as we conducted our district planning:

4. I would like the following kinds of help from the Cadre staff as we plan for and carry out inservice training:

Appendix I

TELEPHONIC INTERVIEW RESPONSE DATA

Pioneer-Whittier
June 15, 1977

1. As a result of the Cadre workshop, did you see yourself as a team?

   Yes

2. How many times has your team met since the Cadre workshop?
   At least half a dozen times.

3. What are the positions of the people on your team?
   A vice-principal of curriculum, career center director, 2 department chairmen, counselor, teacher

4. What actions have you taken since the workshop?
   Met with all department chairmen and explained infusion to them.

5. What is working for you; what is impeding your development of an inservice training effort?
   Going well, no problems. Having a vice-principal of curriculum on the team was a major advantage.

6. What planning has your team done since the workshop?
   Planned to meet with department chairmen to explain infusion.

7. How optimistic are you about your team's implementing career education inservice?

   Pretty optimistic

8. Are you interested in working with UCLA in a follow-through on your career education inservice efforts?

   No

9. Who might we call to keep in touch with your team? Darlene Staib
   Will they be available during the summer? No
   Phone # 698-8121

   In the summer, you could call John Kimmick.

Los Angeles
June 15, 1977

1. As a result of the Cadre workshop, did you see yourself as a team?
   No

2. How many times has your team met since the Cadre workshop?
   They have not met as a team, only in mass meetings of career advisors.

3. What are the positions of the people on your team?
   All career advisors except for one teacher.

4. What actions have you taken since the workshop?
   Just a report to the central office.

5. What is working for you; what is impeding your development of an inservice training effort?
   The main problem is the integration situation in Los Angeles, which is currently occupying everyone's attention.

6. What planning has your team done since the workshop?
   None, but they are hoping to do some this summer, under Gene Kocol. At this time the career advisors are uncertain as to whether they may be transferred and put under Guidance.

7. How optimistic are you about your team's implementing career education inservice?
   A little negative at this time.

8. Are you interested in working with UCLA in a follow-through on your career education inservice efforts?
   Contact Mr. Kocol.

9. Who might we call to keep in touch with your team? Gene Kocol
   Will they be available during the summer? Yes
   Phone # 625-6466

Hamilton Township Schools

1. As a result of the Cadre workshop, did you see yourself as a team?
   Yes. Already met with our Director of Curriculum. We are forming teams for the district and for each school in the district. The Cadre materials are intact.
2. How many times has your team met since the Cadre workshop?
   Twice
3. What are the positions of the people on your team?
   2 guidance counselors, business ed teacher, social studies teacher, administrator
4. What actions have you taken since the workshop?
   Assessment of the needs in our district. We distributed a questionnaire to every school in our district. We have the data being analyzed by a computer over the summer.
5. What is working for you; what is impeding your development of an inservice training effort?
   No problems so far. The only problem has been the time factor. Since the workshop was so close to summer we didn't have much time to do anything. Therefore nothing will be done until September.
6. What planning has your team done since the workshop?
   See question 1. Also I have met 6 times with the team at my high school. We are planning and phasing in various aspects of infusion materials.
7. How optimistic are you about your team's implementing career education inservice?
   Optimistic. I have no doubt in my mind that we will accomplish this. It's not easy, though, & certainly won't be done quickly. Even though we had a workshop, the concept is not completely clear to all. I feel we will
   probably ha
   to meet dep
   by dept. W
   are still
   putting the
   data from o
   questionnai
   into the
   computer.
8. Are you interested in working with UCLA in a follow-through on your career education inservice efforts?

   Certainly interested, but what kind of follow-through?
9. Who might we call to keep in touch with your team? Dr. Pironti
   Will they be available during the summer? gone in July & part of Aug
   Phone # (201) 887-0984

   Will be in Calif. in two weeks (from June 24) and may drop by.

Matawan Regional Schools
Matawan, NJ

1. As a result of the Cadre workshop, did you see yourself as a team?

   Yes. We have been working together.

2. How many times has your team met since the Cadre workshop?

   5

3. What are the positions of the people on your team?

   3 guidance counselors, director of business ed, director of cooperative ed

4. What actions have you taken since the workshop?

   We made a report to the superintendent and other administrators. We drew up and submitted a proposal for funding for a summer workshop for career ed. This was denied due to inadequate funds. We are now applying for Federal funds.

5. What is working for you; what is impeding your development of an inservice training effort?

   Money is the problem - no funds

6. What planning has your team done since the workshop?

   See Question 4.

7. How optimistic are you about your team's implementing career education inservice?

   "Pretty good interest around"

8. Are you interested in working with UCLA in a follow-through on your career education inservice efforts?

   Yes

9. Who might we call to keep in touch with your team? Me
   Will they be available during the summer? After July 15
   Phone # (201) 583-5496

career counselor

Upper Montclair, NJ

1. As a result of the Cadre workshop, did you see yourself as a team?
   We have not been a team since the workshop because we haven't met yet. We were a team at the workshop, however.
2. How many times has your team met since the Cadre workshop?
   None. And it's hard to say whether we'll meet again. It's not high on the superintendent's priority list.
3. What are the positions of the people on your team?

   N/A
4. What actions have you taken since the workshop?
   Personally, I will try to get something going in my building. I'm trying to get workshop time in August and our director seems optimistic about our ideas.
5. What is working for you; what is impeding your development of an inservice training effort?
   Funding is the problem.
6. What planning has your team done since the workshop?

   N/A
7. How optimistic are you about your team's implementing career education inservice?
   Career ed is already a fact in our district. We will use Cadre's approach.
8. Are you interested in working with UCLA in a follow-through on your career education inservice efforts?

   N/A
9. Who might we call to keep in touch with your team? Ray Hugg, Director
   Will they be available during the summer?
   Phone # (201) 78304000, Ext. 230

South Brunswick, NJ
June 16, 1977

1. As a result of the Cadre workshop, did you see yourself as a team?

   Yes

2. How many times has your team met since the Cadre workshop?

   Several times

3. What are the positions of the people on your team?
   CIPED Director, Science Teacher, Guidance Counselor, Teacher/Counselor in Special Ed, Industrial Arts teacher

4. What actions have you taken since the workshop?

   We are in the process of implementing the plan developed during the workshop and are currently writing a proposal to try to get funding.

5. What is working for you; what is impeding your development of an inservice training effort?

   Biggest problem right now is trying to decide which would be the most feasible source of funding

6. What planning has your team done since the workshop?

   See above

7. How optimistic are you about your team's implementing career education inservice?

   Very

8. Are you interested in working with UCLA in a follow-through on your career education inservice efforts?

   Yes

9. Who might we call to keep in touch with your team? Millie Grey or Jean Dorgan
   Will they be available during the summer? Through July 15 (Ms. Grey)
   Phone # (201) 694-8600

   If they get funded, Jean Dorgan will be their Project Director

Bassett

1. As a result of the Cadre workshop, did you see yourself as a team?

   Yes. We have in common the shared experience of attending the workshop.

2. How many times has your team met since the Cadre workshop?

   2 times. Because of organizational nature of career ed in our district, we have expanded the team.

3. What are the positions of the people on your team?

   Elementary, intermediate and H.S., principal of each school and key teachers in each school in our district. These are identified as the implementary for career ed in our district.

4. What actions have you taken since the workshop?

   Developed our master plan, purchased materials for extended inservice capability. Incorporated ideas from other projects, especially the 4-C project.

5. What is working for you; what is impeding your development of an inservice training effort? Some teachers are difficult, of course, but we don't see any problems in our district. We are encouraging them to try it out. We are giving them lots of information and trying to answer any questions. We have our resource materials. Using 4-C & Cadre materials

6. What planning has your team done since the workshop?

   First, we assessed where we were after the workshop in our district. Then we got materials from our district office.

7. How optimistic are you about your team's implementing career education inservice?

   Quite optimistic. The original team will not be a functioning team though. We expanded it.

8. Are you interested in working with UCLA in a follow-through on your career education inservice efforts?

   Yes, but what does that mean for us? What will your program do for us? Would be very interested but would like some information.

9. Who might we call to keep in touch with your team? Ed Ellis
   Will they be available during the summer? Yes
   Phone # 333-5251, Ext. 253

Appendix J

Staff Comments to Module Delivery

Module 1

Staff 2

Content

1. I suggest a variation on the opening sharing exercises. First, I would replace the introduction exercise; it has entertainment value but does not seem too strongly related to self-awareness principles. Second, combine the self-disclosure exercise with a similar one, but one which focuses the volunteers on disclosing their career development interests, abilities, and values. Each volunteer could then reflect on to what extent their current position satisfies the interests, abilities, and values they feel are important to them.

2. Provide career examples of the self-awareness concepts of cognitive dissonance, differentiation, and integration.

3. Eliminate (p. 57) reference to cadre charting their workshop progress.

4. Put "horse trading game" in the decision-making module.

5. Add section on (1) self-awareness developed through infusion; and (2) distinction between teaching self-awareness and self-awareness career skills.

Delivery

1. Introduce topic by distinguishing between teaching self-awareness and infusing self-awareness activities that are related to career development.

2. Use two groups of volunteers for sharing exercise (not introductions). One focuses on self-disclosure; the other focuses on self-awareness of career interests, abilities, and values. Discuss group differences with total workshop cadre.

3. - Tell cadre you will give an example of each principle you identify and then will expect teachers in the group to give an example of how principle can be applied in their classrooms.

4. Give greater emphasis to the self-created self (p. 58), and the developmental nature of the self. Then spend more time on attachment 2, values and careers. A better attachment would be a psychological profile in narrative form on the careers listed in #2, or a subset of them.

5. Close by asking cadre to summarize the module and to clarify teaching self-awareness with infusing self-awareness for career development purposes.

Staff 3

Delivery

1. Get acquainted exercise very important for those participating. Try to get everyone to participate (pairs or across teams) and to take a little more time.

2. Small group exercise is good if all can hear, as in Wisconsin but not in Los Angeles.

3. Paired interactions were good in New Jersey and Illinois but could've used a bit more time.

4. Discussion on how to present these concepts to other educators seemed productive.

Additions/Deletions

All the content was not covered in its exact specifications. However, discussion and questions did not detract from the main emphasis on the module.

Staff 4

Delivery

When the small group was asked to introduce themselves and talk for a few minutes (in Los Angeles only), the others were not clear as to what they were supposed to be doing. Some thought they were expected to divide into similar groups. People in the back couldn't hear. The exercise worked well once it got started.

Module 2

Staff 2

Content

1. The third person point-of-view is appropriate. Cadre do not deliver this module.

2. Objectives 2 and 7 can be eliminated. Objective 8 can be clearly identified as a team objective.

3. The statement of purpose about a needs assessment can be entered at start of this section.

4. The performance objective section is comprehensive and clear and should be retained entirely.

5. The evaluation section could be expanded to indicate the two major kinds of evaluation and what type is more appropriate to program development.

6. The "Management and Operations Planning" section is fine, but it could be pointed out early on that these steps fall under the "implementation" branch of the program development module.

7. The progress test is difficult and can be completed successfully only after much use of the material.

Delivery

1. Go slow. Emphasize the technical nature of material and heavy use of jargon-like terms.

2. Read the training specs at the end. They are effective. The exercises are too time-consuming for the workshop format. Make exercises optional, depending on group.

3. Specifications for delivery too long. Would take entire day: 6 hours. Eliminate progress test.

4. Following discussion of "needs assessment" branch of model, introduce planning forms and indicate how the planning process should be consistent with a model of program development. Then explain the structure of the Master Plan forms, the process of planning recommended, and the teams listed under each step. Refer cadre to the individual planning forms contained in rear of packet and show them the examples of "operations" which are listed.

5. Summarize modules slowly and completely. Ask for questions at several points. End by reminding cadre of their planning and leadership functions.

Staff 3

Delivery

1. Some problems in cadre's receptivity to this module in L.A. May have been avoided with better preparation and introduction/overview.

2. Explanation and presentation of planning forms must be done thoroughly as in Wisconsin, Illinois, and New Jersey. Maybe some simplification of forms.

3. Refer cadre to planning forms in back of materials. Some missed them.

Content

Some of the content was not presented.

Staff 4

Poor reception of the module in Los Angeles was probably due to deficiencies in advance information given to cadre. People commented, "We don't know why we're here." One of the few near me said she did not expect the workshop to be concerned with teacher training. The project should make up its own description of the content and purpose of the workshop, to be sent to the prospective cadre well in advance (some people need such a description in time to submit it to their board for approval).

Module 3

Staff 2

Content

1. The decision-making model might include as Step 4: "Examine probable consequences."

2. Emphasize the cyclical nature of the model. Use concept of "goals" to show how a person tends at first to identify goals which are irrelevant to present needs, unrealistic, or too global and how to go back to the beginning and redefine.

3. Following "financial transaction" exercise, insert horse-trading game. Latter indicates the decision-making process in groups of two or more and can be contrasted with steps of model.

4. Need a separate section for planning and difference between planning and decision-making.

5. Eliminate objectives 6, 8, 11, 12, 13, and 14.

6. Convert p. 119 into an attachment.

7. End by relating decision-making and planning skills to career development.

Delivery

1. Speed up pace of financial exercises.

2. Suggested variation for financial exercise: as each cadre describes transactions, ask another to infer the principles followed/violated. Then staff comments.

3. When delivering horse-trading game:

   a. ask group for a mathematical answer

   b. ask representative to describe decision-making process, not decision arrived at

   c. ask other cadre to comment on decision-making process; what was learned about group, people in the group

   d. staff comment on decision-making process; try to identify minority opinions which are correct.

4. Emphasize that making good decisions about careers is complicated and difficult; reiterate all the concepts and interactions involved (model, values, priorities, risk, utility) but that few decisions are irreversible. Point out why few people decide to change careers and how new emphasis on career development through classroom instruction can contribute to more mature decision-making.

Staff 3

Delivery

The presenter of this module was less experienced at speaking before a group than the other presenters. There was improvement in the delivery over the course of the workshops as the presenter gained practice and confidence. The group involvement by teams in the group decision making exercise and the discussion of infusion practices brought the teams closer as working groups during this module. It seemed to build "teamness" and group cohesion.

Content

Add the horse trading exercise to this module to illustrate principles of group decision making and to build team cohesion. The principles elicited from this exercise should be delineated as part of the module materials and presentation.

Module 4

Staff 2

Content

1. Revise opening exercise. Instead of choosing which they like, ask cadre to select one and add to the description the information an applicant could use to decide if this were a satisfactory career opportunity.

2. Chapter needs to provide cadre with the psychological bases for each of the Holland fields. This should come at middle of p. 138. I consider this basic information important. Without it, the fields of occupations are difficult to comprehend and interpret.

3. Refer to popular classifications other than Holland's and compare/contrast advantages and disadvantages of each. Summarize empirical evidence on Holland's scheme, and indicate the changes in occupations of women are too recent to be reflected by this scheme.

4. Revise section (p. 139) on Occupational Outlook Handbook. Just describe its structure and content. Section on minority criteria is thin.

5. Provide sub-heading for section on information-seeking.

6. Add two sections: (1) career maturity; and (2) relationship between career awareness and self-awareness.

7. Eliminate objectives 2, 3, 6, 7, 8, and 11.

Delivery

1. After opening exercise ask volunteers to describe their own occupation in terms of the six criteria for career selection.

2. Use the true-false questions on p. 141-142 and comment on answers both correct and incorrect.

3. Discuss concept of career maturity. Discuss relationship between self-awareness and career awareness (interactive, developmental).

4. Discuss changing nature of career development in relation to changing social/cultural values.

Staff 3

Content

1. De-sex terms in Holland's classification. Present other classification models for comparison.

2. Add hexagonal diagram of Holland's model showing relationship of clusters to each other.

3. Delete or change first exercise.

Staff 4

Delivery

In Los Angeles this module lasted too long without a break. Participants became restless before the end.

Staff 5

The team approach to delivery of a module paid off. As a result of less strain on the presenters, I believe they were able to operate more effectively. The discussions were lively and relaxed.

Module 5

Staff 2

Content

1. Rewrite chapter. Emphasize the collaboration vs. cooperation issue. Stress the strong degree of community involvement apparent in the career education movement and select a few examples of major kinds of national involvement.

2. Discuss relationship emerging between community involvement and infusion concept. Show how this relationship is better resolved by collaboration than by cooperation.

Delivery

1. Summarize workshop for panelists. Summarize purpose of panel and orient panelists and cadre to issues that need discussion.

2. Introduce districts in attendance and project staff and observers.

3. Introduce panelists to districts.

4. Ask panelists to introduce themselves to educators by position, by co-involvement, and by indicating the issues and experiences they find interesting/important in the career education movement.

5. Summarize each panelist's comments and identify the main theme each panelist spoke to.

6. Ask district which invited each panelist to react to the panelist's remarks.

7. Open session to questions/comments between panelists and educators.

8. About an hour into discussion, focus discussion on the collaboration vs. cooperation issue.

9. Monitor/focus discussion.

10. Close by asking panelists in turn to address district teams as teams with planning, training, and leadership responsibility for the success of career education in their districts.

Module 6

Staff 2

Content

1. Flesh out empirical findings, being up front about their limitations.

2. Can a second theory, other than Super's, be included?

3. Add this limitation of Super's: theory emphasizes the directive force of self-concept but evidence suggests weaker correlation between adolescent self-awareness and later career satisfactions.

4. Add section which provides a rationale for the teacher as change agenct in career education. Why infusion? Why the teacher?

5. Discuss roles of counselor, guidance specialist, administrator in career education infusion programs.

6. More discussion (including available evidence) on what is meant by career maturity.

7. Revise Attachment 3 to include more recent findings.

8. Eliminate objectives 5, 8 and 9.

Delivery

1. Following the career education line discussions, call on cadre to relate what they heard; call on people from each end of line, not the middle.

2. Review the major arguments against career education and infusion and indicate how they can be rebutted most effectively.

3. Review one or two K-12 career development models.

Staff 3

Content

1. The career education line is very effective for getting cadre discussing career education and coming up with definitions, consensus and focus.

2. Address the issue of whether "career" includes leisure and to what extent. There was some disagreement on this point.

Delivery

1. Know how to give directions for career education line before module to avoid confusion.

2. Have all cadre participate in career education line as was done in Wisconsin, Illinois, and New Jersey.

Staff 2

Content

1. Redefine evaluation as more than a set of decision procedures; i.e., it is also a comparative judgment about the descrepancies between preference standards and performance standards. Each set of standards are stated in client/student performance terms.

2. Add section on the differences between formative and summative evaluation. Explain which is more useful to cadre and why.

Delivery

1. Begin by pointing out that evaluation is neither a measurement nor a statistical phenomenon. It is judgmental. The statistics are usually simple.

2. Use a relaxed, low, non-threatening tone. Emphasize formative evaluation for cadre purposes and point out that in this context the decision-makers are the program developers.

3. Emphasize the continuous nature of the evaluation process. De-emphasize the testing elements.

Staff 3

Content

On p. 240, evaluation is listed in five categories, yet only the first three are treated under separate headings in the following pages. The other two should be likewise delineated to make the module more organized.

Delivery

In all workshops, the delivery was done well and received well.

Module 8: Coaching

Staff 2

Suggest we eliminate module and develop module on leadership and planning for educational change.

Overall Comments

Staff 3

Content

1. Rewrite test items so that all are objective in design. Reduce number of items and objectives.

2. Throughout the workshop, have a person from business or industry as part of the planning team.

3. Have each cadre write their own infusion practice in subsequent workshops.

4. Have module name and number on each page in the materials.

Delivery

1. Try to agree upon set-up of room prior to workshop. In New Jersey especially, and to a certain extent in Los Angeles, this hampered delivery and wasted time. In Wisconsin and Illinois set-ups were good.

2. Except in Los Angeles, the overview of the materials and purpose of the workshop was very helpful. This should be retained.

3. Re-sequence the modules so that they're given in the order they were in the Midwest and East: (Overview), (1) Theory, (2) Planning, (3) Self-Awareness, (4) Planning and Decision-Making, (5) Community, (6) Career Awareness, and (7) Evaluation. Delete coaching module and have one final planning session and plan presentations on last afternoon.

Staff 4

Registration

In Los Angeles there were several participants who were not part of a specific team, and these people had difficulty determining where they should sit. If there are extra people, they should be pre-assigned to a team.

Other Comments

1. Several cadre in Los Angeles complained that they needed help in working with specific ethnic groups or disadvantaged populations. Couldn't a component including suggestions for how to target the concepts toward these groups be built into each module? A short section in each module, plus some infusion practices (e.g., dealing with increased numbers of blacks in certain occupations over the last few years, or a decision made by a prominent figure in black history, etc.) would satisfy the teachers who feel their special needs are not being considered.

2. Why not ask cadre to write up their own successful infusion practices and send to the project? Perhaps forms could be included in the packet for writing up practices in the format already used by Project Cadre.

3. Could copies of Dr. Healy's monograph be available for people to buy at the workshops?

Comments on Questionnaires

Cadre Characteristics:

1. Some people did not understand that "full-time educator positions" was intended to include past as well as current positions.

2. On the questions which cadre were to rank-order 5-4-3-2-1, I believe some people misread or forgot the instructions and ranked them in reverse order. A few did not order them, but checkmarked the ones they thought most important.

3. On the last question, rating support for CE on the part of various groups, some people rank-ordered the list; most rated each group separately.

4. The questions on the form should be numbered.

District Characteristics:

1. Again, the questions should be numbered. A majority of people skipped the first question because of the format--they didn't see it.

2. On the question of what support the district would provide, many people did not know. A "don't know" should be on the list of answers.

3. On personnel in leadership roles, some people gave two answers (for principals and superintendents). Maybe this should be two questions?

4. Questions on percentage of students graduating, median income of families, proportion of minorities, year of schooling completed, and district expenditure per pupil should include a "don't know" category.

5. On the question, "Our schools draw students primarily from (suburban, industrial, etc.), a number of people circled more than one answer.

6. On the statements where they were told to circle A or B, these apparently were not mutually exclusive in some cases. Quite a few people felt both statements were true for their district, especially on question 1.

On the Satisfaction Scale and the Career Growth Index, some people did not fill out the reverse side. Perhaps it would be better not to run questionnaires front and back.

Staff 5

I. Workshop Delivery

A. Los Angeles

As a result of this initial workshop presentation, the staff was able to make valuable changes that dramatically improved the presentation of future workshops. Also it was found important to deliver an in-depth report to cadre members at the start of Day 1 as to the purpose of the workshop and inform them why they were attending. Cadre were informed who they were, what was expected of them, and what they could expect.

I felt that the most important delivery problem solved at the workshop was the decision to involve "teams as teams" in discussions--rather than ask one person from the room for his opinion only. Involvement of the whole group and discussions within teams were much improved as a result.

Also from the Los Angeles workshop it was decided to split the presentation of modules between persenters. I felt this helped the presentation quite a bit. It was good modeling. Here we are trying to get the cadre to work in teams and here we are, working as a team, to present a module. I liked the "team" approach to presenting a module that was adopted after Los Angeles. The idea for this particular change was developed in Los Angeles. The idea for this particular change was developed in Los Angeles but really put to use in Chicago.

Other things we learned in Los Angeles were:

1. Site coordinator really can make or break a workshop. Selection of P's is very important.

2. It is best to keep the N around 20-30. The L.A. workshop was too big.

3. If possible it's better to have fewer test forms to be filled out. Otherwise P's feel they are "guinea pigs."

4. Order of presentation of the modules was changed to reflect "needs" of cadre.

5. It's better to have one person responsible for data collection.

6. It's a good idea to have "breaks."

B. Milwaukee

I felt this presentation went very well. A decision was made here to lean more heavily on team presentation of a module.

C. Chicago

This workshop was delivered smoothly and seemingly effortlessly. The confusion at this workshop appeared low--despite the intrusion of a tornado!

II. Materials

I have absolutely no complaints concerning the materials. I only wish that cadre had had a chance to read them before the workshop. I feel this preparation may have helped some of the confusion as to what was expected of them and also given them a better framework in which to function as workshoppers. The materials were first class as far as I was concerned.

The instruments (such as the pre and posttests) need much improvements. Suggestions have been offered and the staff has already decided to drastically improve these measures. I would like to suggest that all forms be formatted (pre-coded) so as to facilitate processing and keypunching. Also we might consider using an IBM answer sheet for each participant for the whole workshop. This would not only help in tracking data, but also would mean no keypunching of data. The computer would read the form and generate a deck for each individual. The decks could then be interleafed, as was done previously. This would not only save time, but money!

It is important that a code book be written before any tests are administered. All decisions as to "what gets punched in what column" should be made before the tests are administered. In this way, the various forms can be pre-formatted. I believe the time constraint prevented us from following this course of action this time. However, if we are re-funded, I would suggest that we take the time to format everything.

CH14

Appendix K

Cadre Training Materials

Pages

QUESTIONNAIRES . . . . vii-xxii

- Cadre Characteristics vii
- District Characteristics xi
- Career Growth Index xv
- Expectation Scale xix
- Workshop Satisfaction Scale xxi

MODULES 47-300

- Introduction 47
- Infusing Self-Awareness and Self-Confidence into the Classroom 51
- Planning a Teacher Training Inservice for Career Education 77
- Infusing Career Planning and Decision-Making into Classroom Instruction 107
- Infusing Career Awareness 135
- Integrating Community Resources into Career Education 161
- Career Development as the Integrating Concept of Career Education 193
- Evaluating Your Inservice 235
- Coaching Classroom Teachers Who Experience Career Education Infusion Problems 271

INFUSION PRACTICES 303-374

- Emphases on Self-Awareness 305
- Emphases on Planning and Decision-Making 321
- Emphases on Career Awareness 341

Note: All process tests, posttests, and three forms of the pretest were removed to save publication cost. The approximately 200 items required more than 100 pages. Pretest 1 is included in order to illustrate the type of cognitive tests used. All cadre were asked to complete one pretest and one posttest, but the progress tests were deleted after the first workshop. Currently, only examination copies of the cognitive test items are available.

CADRE CHARACTERISTICS

The following information will help us to determine whether particular characteristics or attitudes are related to effectiveness in career education. Completion of the form and each item is voluntary. Your identification number rather than your name appears on the form because following completion of the project, the list of names and numbers will be destroyed to safeguard your identity. Of course, your responses will be regarded as confidential for use of this project only.

Please circle the appropriate responses:

Sex: M F

Age: under 35; 36-45; 46-55; 56+

Career Goal: Retain current position
Change fields
Advance within education field
Other ____________________

Years as an educator: 0-5; 6-10; 11-15; 16+

Salary: Under $10,000; $10-14,900; $15-19,900; above $20,000

Your full time educator positions: Teacher, counselor, vice principal, principal, teacher trainer, department chairperson, district staff/ administrator, superintendent, university/2 or 4 year college professor, elementary school teacher

Years of full-time employment outside of education:
None; 0-1; 1-3; 4-7, 8 or more

Active memberships: Union/professional group; local business group (Kiwanis, JC, Rotary, etc.); volunteer worker (Scouts, CYO, Y); church; political party; social/country club; military reserve

Years of residing in present community: 0-3; 4-6; 6-10; 10+

Your present/past non-educational leadership roles: elected public official, military officer, officer in club or volunteer group, business owner, local/state officer in union/professional group; officer in political party; other ____________________
____

College/university courses which you have completed in career education:
0, 1, 2, 3, 4+

Number of other inservice workshops in career education which you have attended: 0, 1, 2, 3, 4+

Number of inservice workshops (not only career education) which you have led: 0, 1-3, 4-10, 10+

Please complete the following:

Bachelor Degree Subject ______________________________

Master's Degree Subject ______________________________

Doctoral Degree Subject ______________________________

Other degrees (law, medicine, etc.) ______________________

Please check those activities which you have done as an educator:

_____ Supervised students in work experience.
_____ Regularly had persons speak about occupations in my class.
_____ Incorporated field trips to businesses in my teaching.
_____ Integrated work simulations into my teaching.
_____ Had students set goals and keep detailed records of their own achievement.
_____ Integrated career planning instruction into my teaching.

Rank the alternatives for the following statements in the order of their relative importance for you, from highest (5) to lowest (1), by writing 1,2,3,4,5 on the line to the left of the item.

A. The reason that I am or will be leading inservice training in career education is:

_____ extra pay
_____ assist my getting promoted
_____ prestige
_____ an interesting assignment
_____ belief in career education

B. The importance of the following goals to career education in high school is:

_____ students exit school with salable skills
_____ students and employers know each other better
_____ students are clear about their vocational aptitudes/interests because they have opportunity for many experiences
_____ students are effective planners
_____ students have an accurate knowledge of career opportunities and requirements

C. The order of importance of activities in secondary career education is:

_____ career education infusion within every class
_____ vocational training
_____ training in job search and employment interviewing
_____ work experience (paid/unpaid)
_____ individual or small group career counseling

D. My enthusiasm for career education is based upon

_____ availability of funds for it
_____ its innovativeness in bringing school and community together
_____ my concern with the career development of students
_____ its strengthening of vocational education programs
_____ its provision of alternate methods of education

Please rate the willingness of the following people in your school, or district if you are at the district level, to support infusing career education into classes. Write the number of rating to the left of the group. Let 9 = unconditionally high support; 4 = neutrality; and 1 = staunch opposition.

_____ academic teachers
_____ counselors
_____ vocational/industrial arts teachers
_____ administrators
_____ parents
_____ students
_____ community advisory committee or board
_____ business community
_____ community labor and union leaders

DISTRICT CHARACTERISTICS

The following information will help us to determine whether particular characteristics or attitudes are related to effectiveness in career education. Completion of the form and each item is voluntary. Your identification number rather than your name appears on the form because following completion of the project, the list of names and numbers will be destroyed to safeguard your identity. Of course, your responses will be regarded as confidential for use of this project only.

Please circle appropriate answers. Circle only those about which you are relatively certain.

My district/school has allotted time/funds for me to do the following number of days of inservice with teachers/counselors: 0, 1-10, 11-20, 20+

The following know(s) about our participation in this workshop:

_____ superintendent
_____ superintendent staff
_____ principal(s) of school in which inservice planned
_____ professional staff of school in which inservice planned
_____ school board
_____ advisory committee or PTA of school involved
_____ student leaders
_____ business leaders in the community who have helped in career education
_____ University/college personnel with whom we have consulted

My district will provide the following to those who are inserviced by my team:

extra pay
credits toward a step increase
released time
professional recognition
credits needed for maintaining competence
opportunity to revise courses so that they can use what they learn

The priority of career education in our district is:

the top　　high　　medium　　low

Personnel in leadership roles (principals, superintendents) retain their positions:

0-1 years　　2-4 years　　5-7 years　　8+ years

The percentage of students graduating from schools I serve is:

less than 50%   51-60%   61-80%   more than 80%

The median income of families in our district is:

under $10,000 $11-15,000 $16-20,000 $21,000+

The proportion of minority youngsters in the district is:

10% or less   11-25%   26-50%   50-75%   76+%

Our district contains high schools:

1   2-4   5-10   10+

The typical student in our district enters full-time work after completing the circled year of schooling:

11 or less   12   13   14   15+

Our schools draw students primarily from:

suburban area   industrial/business area   rural

light business/industry   inner city

The district yearly expenditure per high school pupil averages approximately:

$1,000 or less $1,100-1,199 $1,200-1,399

$1,400-1,599 $1,600+

CAREER GROWTH INDEX

Indicate the amount of thinking or planning you have done on the following 40 tasks by checking the rating of each on the five-point scale. The scale is defined as follows:

5 - I have already done this and am no longer concerned about it.

4 - I am now doing what needs to be done.

3 - I know what to do about it and how to do it.

2 - I have thought about it but do not yet know what to do about it.

1 - I have not yet thought much about it.

Career Tasks*	5	4	3	2	1
1. Deciding what I really want to do for a living.	_____	_____	_____	_____	_____
2. Learning more about various kinds of opportunities.	_____	_____	_____	_____	_____
3. Finding an occupation that will allow for expression of my interests and abilities.	_____	_____	_____	_____	_____
4. Learning more about training requirements for certain kinds of work.	_____	_____	_____	_____	_____
5. Getting to know myself better.	_____	_____	_____	_____	_____
6. Choosing among the career alternatives I now see.	_____	_____	_____	_____	_____
7. Deciding what kind of special training to get.	_____	_____	_____	_____	_____

---

*NOTE: The first 20 items are from the Career Development Inventory (College Form I), Teachers College, Columbia, 1973. Permission to use this material was received from Donald E. Super, the senior author.

	5	4	3	2	1
8. Deciding on an occupation people respect.	____	____	____	____	____
9. Choosing an occupation that will really satisfy me.	____	____	____	____	____
10. Finding an opportunity to get the needed training.	____	____	____	____	____
11. Getting started in my chosen field.	____	____	____	____	____
12. Choosing action steps that will help me achieve my ambitions.	____	____	____	____	____
13. Deciding what sacrifices I am willing to make in order to reach my goals.	____	____	____	____	____
14. Making the contacts that will lead to a job that I want.	____	____	____	____	____
15. Qualifying in the specialty I like best.	____	____	____	____	____
16. Making a place for myself in the company where I work.	____	____	____	____	____
17. Getting settled in a community.	____	____	____	____	____
18. Establishing the kind of home I want.	____	____	____	____	____
19. Finding my own niche in the organization.	____	____	____	____	____
20. Starting a savings and investment plan.	____	____	____	____	____
21. Achieving the job status which I had wanted at the period when I completed schooling.	____	____	____	____	____
22. Participating in community and civic affairs of interest to me.	____	____	____	____	____

	5	4	3	2	1
23. Obtaining the experiences needed for my next promotion or transfer.					
24. Identifying jobs which I could secure within six months, should my current employment terminate.					
25. Feeling that I express some of my important values through my work.					
26. Obtaining the training, degree, credential, or license needed for a promotion or transfer.					
27. Identifying an activity schedule which will be satisfying after retirement.					
28. Accruing investments exclusive of my home which produce 20% or more of my income.					
29. Planning a budget for my retirement years.					
30. Re-examining my work goals in light of my achievements and the changes in our country's economic situation.					
31. Occupying a job which is enjoyable at least half of the time.					
32. Earning a salary sufficient for an acceptable life style and savings.					
33. Pursuing a job which develops the abilities and interests important to me.					
34. Examining the concerns of my fellow workers five to ten years older than me.					

	5	4	3	2	1
35. Achieving a balance between my work, familial, social, and other commitments.	____	____	____	____	____
36. Feeling confident about succeeding in my work.	____	____	____	____	____
37. Participating in my union, trade organization, or profession in a manner appropriate for a person with my experience.	____	____	____	____	____
38. Reviewing my career plans for the coming 5 to 10 years with my spouse, family, or others close to me.	____	____	____	____	____
39. Informing the appropriate supervisors of my expectations for transfer or promotion.	____	____	____	____	____
40. Identifying new challenges in my occupation or field or work so that it continues to be interesting after several years of experience in it.	____	____	____	____	____

EXPECTATION SCALE

Please indicate what you expect the people you train to do in career education by checking the appropriate column for each of the following actions.

I expect the educators we train to:

	Very Much	Much	Some	Little	Not At All
1. Restructure instruction so that planning and decision-making receive more emphasis.					
2. Use community resources more to improve instruction.					
3. Develop career activities similar to those in the examples provided during the workshop.					
4. Integrate parents, workers, and volunteers into classroom instruction.					
5. Point out and demonstrate the importance of subject matter skills to particular occupations and training programs.					
6. Provide students more feedback about specific abilities developing within the class.					
7. Know more about obtaining career information for classroom use.					
8. Direct instruction more toward career development.					
9. Encourage girls more in exploring careers which have been dominated by males.					
10. Teach students that every occupation has value.					

PRETEST

Form 1

(1-1) 1. Mark True or False in blanks provided.

A. _____ Self-awareness means increasing your perceptivity of others in relation to yourself.

B. _____ Cognitive dissonance exists when a person resists ideas about himself which aren't in accord with his self-image.

C. _____ When a person learns to distinguish himself by trying new activities, he is engaging in self-integration.

D. _____ Infusion means applying one or more of the career education principles during classroom instruction.

E. _____ If you believe you will succeed, then you are self-confident.

(1-9) 2. Describe a technique for introducing self-awareness infusion to teachers in a career education training program.

(3-3) 4. Place the number of the definition (right) next to the decision-making and planning concept (left) which corresponds to it.

Concepts

Values ___

Decision ___

Plan ___

Reliability of information source ___

Brainstorming ___

Contingency ___

Alternative ___

Risk ___

Utility to chooser ___

Definitions

1. An event which could alter the attractiveness or accessibility of the goal.
2. The probability that an alternative will produce the goal.
3. The process of choosing one alternative from among two or more.
4. The standard(s) for judging a decision successful.
5. The importance and priority of the goal for the chooser.
6. A decision within a plan which is capable of executing the plan's action.
7. Source that has provided you or others with accurate information on a topic previously.
8. A group problem-solving technique involving the spontaneous contribution of ideas from all members.
9. A strategy consisting of a series of steps, or activities, for achieving a goal.

(3-5) 5. Ray, an honor student, plans to get all "A's" on his 20-week report card. His 10-week report reveals four "A's" and two "B's." Determined to achieve his goal, he identifies three alternatives from his teachers, counselor, and friends, which he thinks can help him improve the "B" grades. Indicate the next step Ray should take in his process of decision-making.

(3-6) 6. Given the learner objective below, describe an instructional project in sufficient detail for a teacher to implement.

Objective: Having selected a career of interest to him/her, the student will list and describe four other careers utilizing the same experience and training which could be entered if he/she later wished to change careers.

(3-7) 7. Students have the potential to make numerous school-related decisions or plans. Identify seven such decisions below.

(3-10) 8. Mark an "X" in the box in front of the correct answer.

I feel that career planning and decision-making should be infused into classroom instruction.

☐ A. Strongly agree

☐ B. Agree

☐ C. Disagree

☐ D. Strongly disagree

(3-12) 9. Put the following steps of the procedure recommended for teaching about decision-making and planning in the order of best presentation:

	# of statement
1. Participating in exercises for clarifying effective decision-making	___
2. Career decision-making and planning exercises in the classroom	___
3. Explaining decisions	___
4. Explaining problem solving	___
5. Explaining other concepts important to career decision-making and planning	___
6. Explaining principles	___
7. Eliciting principles	___
8. Explaining the general steps in decision-making	___

(3-14) 10. Mark an "X" in the box in front of the correct answer.

Within three months of completing this training program, cadre should have inserviced teachers in infusing career decision-making and planning.

☐ Strongly Agree

☐ Agree

☐ Doubtful

☐ Disagree

(4-2) 11. Present an argument utilizing at least two principles for promoting learning skills which exemplify that it is more important for a student to learn and to appreciate career information-gathering and processing than to learn particular facts about occupations.

(4-4) 12. Name the six occupational clusters in Holland's classification and indicate the number of workers employed in each.

(4-7) 13. Circle the numbers of the general rules which are likely to develop the habit of information seeking and information processing.

1. Information seeking and information processing will become more habitual if observed in esteemed models.
2. Information seeking and information processing will increase in direct proportion with decision-making opportunities.
3. Information seeking and information processing will be developed by practice.
4. Information seeking and information processing habits are likely to be extinguished if inaccurate sources are used.

(4-10) 14. Identify five (5) occupations and five (5) hobbies associated with the study of English.

Occupations	Hobbies
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

(6-4) 15. As briefly as possible, summarize Super's self-concept theory of career development.

(7-5) 16. A module to teach career education concepts includes: (a) a set of printed materials for the participants to read, (b) instructions for the teacher to give the participants, and (c) several exercises to be completed by the participants. Develop a checklist for monitoring the presentation of the module.

(8-1) 17. Mark an "X" in the box in front of the correct answer.

Problem-solving can be defined as:

☐ A. a differentiated action or process for dealing with human conduct.

☐ B. providing an answer or alternative solutions to a confusing state of affairs.

☐ C. a process for making decisions designed to accomplish short-term goals.

☐ D. a systematic method for removing obstacles to long-range plans.

(8-5) 18. Read the list of principles below and identify with an L, M, or P, those which are learning, those which are motivation, and those which are planning principles.

1. ___ Achievement is more likely if learners take responsibility for their own learning.
2. ___ The course of action most likely to prove effective will be the course of action which requires the most energy.
3. ___ Different people are likely to achieve similar results by different methods.
4. ___ What is rewarding for one learner may not be rewarding for another.
5. ___ Complex tasks need to be broken down into simpler components.
6. ___ Decisions are likely to be more effective if they are made in accordance with pre-established priorities.
7. ___ Behavior that is rewarded is likely to be repeated.
8. ___ Different role expectations lead to different perceptions of the same situation.
9. ___ People need to know what is expected of them.
10. ___ Intrinsic rewards can be just as satisfying as extrinsic rewards.

INTRODUCTION

This project utilizes a collaborative approach and an objectives-based methodology to develop through workshop training a national cadre of planners-trainers who will be prepared to help secondary classroom teachers infuse career education into regular programs of instruction.

Cadre refers to a core of planners-trainers responsible for the career education inservicing of larger groups of teachers. This larger group of teachers is expected to influence the career development of larger groups of students.

By a collaborative approach to cadre training is meant that each cadre, or team of planners-trainers, will consist of educators representing various levels of responsibility, including district and school administrators, curriculum developers, counseling and guidance specialists, career education coordinators, and teachers of different grade levels and subject matter disciplines. This kind of collaboration is assumed to facilitate successful career education implementation at the district and school levels.

Project Cadre consists of 24-30 teams of educators representing California, Illinois, New Jersey, and Wisconsin. Each team or cadre participates in a 30-hour, 4-day workshop. During the workshop eight instructional modules are delivered. Five modules deal with career education infusion topics, including self-awareness, planning and decision-making, career awareness, theory of career development, and the integration of school and community support. Three support modules are intended to help cadre develop effective local inservice plans. These deal with program development, evaluation, and problem-solving. The modules are considered competency-based and transportable. To increase replicability the five career education modules have been written in the second person. The support modules are accompanied by delivery specifications.

The eight modules can be used in combination or as independent training units. Each module is introduced by a statement of purpose, a rationale, and a list of the intended learner objectives specified for users. A progress test of each module's content can be found at the back of the module. Exemplary infusion practices are contained in a separate section but are identified by number, by subject matter discipline, and by the career education concepts they emphasize.

A glossary of terms appears near the end of the packet.

The final section contains planning forms and instructions for completing them. Participants can use the forms to develop a management and operations plan for inservicing teachers in the local district or school. The management steps and several of the important operations are identified on the forms.

At the workshop each module is delivered during a half-day session consisting of these activities: delivery of the module content, an unstructured discussion of the module's content and method, the completion of a progress test and corrective feedback, and a team planning session during which cadre are encouraged to generalize ideas learned at the workshop to their local career education situation. During the eight continuous planning sessions the workshop staff is available for consultation and feedback.

As a result of participating in the workshop cadre are expected to learn a body of knowledge, to develop a master plan for career education implementation at the local site, and to implement the master plan following the workshop experience.

The evaluation of Project Cadre asks whether the training materials and workshop methods effectively bring cadre to expected levels of performance on measures of learner objectives and whether the collaborative approach contributes to local implementation of career education infusion training.

Several evaluation measures are used. Learner objectives are specified for each module and criterion-referenced tests of each objective have been constructed. Cadre complete a pretest, a progress test, and a posttest. The progress test is used for the formative evaluation of the training materials and methods.

The development of a master plan for career education implementation is used to determine to what extent the program has helped cadre generalize concept learning to a real situation. Cadre plans are analyzed in relation to a set of pre-established criteria.

A one-day follow-up is conducted to determine to what extent cadre were successful in implementing the plan developed at the workshop. A content analysis of the implementation phase is completed to identify the factors which contribute to effective or ineffective implementation.

Module 1

INFUSING SELF-AWARENESS AND SELF-CONFIDENCE INTO THE CLASSROOM

Purpose

The module is intended to review concepts and principles about self-awareness and self-confidence and to show cadre exemplary practices through which teachers can infuse these concepts into their teaching. Cadre are expected to deliver this module to teachers in a similar fashion.

Rationale

Teachers of all subjects can structure their instruction so that students learn about themselves and recognize their achievement even as they master the subject. Since experience in each course affects a person's interests, abilities, and values, he/she should become aware of this in the course. Most teachers will be willing to try some infusion practices as long as the practices are defined clearly and do not interfere with achievement of subject matter goals.

Preparation

Review appended infusion practices, the handout, and read Chapter 2 of Healy, C. C., Career Counseling for Teachers and Counselors (Boston: Houghton-Mifflin, 1975). You may also wish to read Canfield, J. and Wells, H. G., One Hundred Ways to Enhance Self-Esteem in the Classroom (Englewood Cliffs: Prentice Hall, 1976).

****

LEARNER OBJECTIVES

Cadre will:

1. Define such essential concepts as self-awareness, self-confidence, principle, role, infusion, self-integration, self-differentiation, and cognitive dissonance.

2. List four principles for increasing the accuracy of self-knowledge, such as: (a) specify attributes in more detail, (b) obtain feedback from varied kinds of sources, (c) increase one's experiences in regard to the attribute, (d) relate one's assessment to particular observable outcomes in the manner of predictive validity.

3. Identify eight principles for developing self-awareness and/or self-confidence corresponding to those listed in the module.

4. Give an example of each of the three operations (revised lesson, new lesson, project) by which self-awareness can be infused into each major high school subject.

5. Asked to defend infusion of self-awareness into any class, argue that an essential project in every class is setting and evaluating goals based on the premise that every class should promote self-awareness and self-confidence.

6. After identifying a number of obstacles to given self-awareness infusion practices, cadre will indicate that the obstacles should be analyzed in rational systematic ways.

7. Write four questions, each of a different item format, which can be used to measure a student's growth in self-knowledge.

8. Specify a plan for infusing self-awareness into the district's instructional program. The plan should: (a) provide for student needs assessment, (b) identify target teachers, (c) contain an approach strategy, and (d) delineate the amount of infusion to be achieved.

9. Describe how to introduce the topic of infusing self-awareness to teachers as manifest in this module.

10. Feel that self-awareness can and should be infused into classroom instruction.

11. Within three months, give inservice training to teachers on infusing self-awareness.

INFUSING SELF-AWARENESS AND SELF-CONFIDENCE INTO THE CLASSROOM

Start the session by informing the cadre of your purpose and rationale, and have them read "Discovering Oneself Through Schooling" (Attachment 1). Invite questions.

Then have the members spend four minutes deciding carefully what they would like to tell the group in one minute in order that they can get acquainted. As they reflect, pose questions such as: "What are the most important things about me that I want to share?" "What can I share that will make this workshop more helpful for me?" "What do these people want to know about me?"

When the four minutes are up, ask volunteers to share anything about themselves that became clearer by reflecting. To prime discussion, use leading questions concerning such things as feelings about sharing with a group of strangers, desire to appear in a certain way to new acquaintances, etc.

Next ask the workshop members to introduce themselves. To help them remember each other, tell each person to indicate who the preceding people are before introducing himself or herself. After explaining how to do this, add a little humor by asking for a volunteer to be last. Then indicate you will shorten the procedure in order to save time by having each person introduce only the preceding three persons. (Arrange cadre so that they are separated from their district team for this exercise.)

At the outset, tell the cadre to ask each other any questions they wish so that they can get to know one another better. Remind them to limit their prepared statements to one minute. If questions are not forthcoming, ask some yourself in order to prime questioning.

Following the introductions, invite volunteers to share what the limited reactions of their colleagues added to their self-awareness. Point out that they just used three principles for building self-awareness: reflect about who you are, teach others about yourself, and observe reactions of others to you. Obj. 1 Say that self-awareness refers to a person's knowledge about himself or herself, who he/she was, is now, and will be. Note that we have many potential attributes and roles and that our roles influence the attributes we develop. Introduce the concept of cognitive dissonance, the notion that we resist ideas about ourselves which don't accord with the picture we have and that our perceptions are channeled by our self-picture. Mention, too, Piaget's concepts of differentiation and integration as good explanations of the process of self-development; that is, in differentiation a person learns to distinguish himself by trying new activities and this learning is then integrated into more comprehensive self-understanding.

Proceed to clarify the difference between self-awareness and self-confidence, or the person's belief that he will succeed. Note that one's roles can help clarify the difference, since all the roles are part of self-awareness but a person often feels much more able for some of his roles than others. Ask for examples. Generate discussion of the impact on the self of roles such as parent, worker, spouse, citizen; and, if necessary, define role. Invite them to imagine themselves without the role of educator and have volunteers share what difference this would make in who they are.

Elaborate on the importance of self-confidence and elicit ways of
bj. 3 building it. Include such ways as: (1) set achievable goals; (2) review and give yourself recognition for achievements; (3) accept your limitations, but work to eliminate those which obstruct very desirable goals; (4) associate with people who recognize your talent and are positive toward you; (5) seek out and accept appropriate responsibility; and (6) join in setting and working toward family, peer, and class goals.

Follow with a discussion of the importance of accurate self-knowledge. Suggest ways of increasing accuracy such as: (1) specify
bj. 2 attributes in detail; (2) obtain observations on an attribute from several perspectives; (3) increase experience relevant to the attributes; (4) relate one's self-assessment to particular outcomes in the manner of predictive validity. At the close of the discussion of concepts, use the blackboard to review the definitions of self-concept, role, self-awareness, and self-confidence. Invite questions.

Proceed to discuss principles. Say that principles are rules of obtaining a particular outcome which experience indicates apply in most but not all cases. Add that principles are general statements and that often their concrete application can take several forms. One can teach others about oneself, for example, by simply telling them as just happened, by showing a record or picture, by dramatizing, etc.

Ask the group to state additional principles for self-discovery and have these recorded. Elicit, or if not forthcoming, mention such other principles as:

1. Keep a log of progress in an area to know your skill and preference for it and to feel the sense of achievement which comes from progress.

Obj. 3 2. Try out many activities to find out skills and preferences.

3. Observe people like yourself, of the same sex and culture, to see how you are similar to them and to see what you might become.

4. Obtain feedback on your progress in learning a skill. To improve, make appropriate corrections.

5. Review how you spend your time and the products of your activities.

6. Project yourself into the roles you are likely to have in the future and hypothesize about what you will be like as a result.

7. Elaborate on your present roles and list how you believe each should be enacted. (This will clarify what you are now doing but are aware of only occasionally.)

Remind the cadre that they were reflecting on a lifetime and doing so for only four minutes, that others were asked to give feedback about them based on only a few moments' knowledge, while the infusion of reflection into classroom teaching involves a student's reflecting periodically upon a limited set of experiences, circumscribed by time and subject, such as her likes and skills in dissecting a frog and rat or her likes and skills in working with a team of classmates in dramatizing discrimination. In addition, infusion implies that the student has access to intermittent feedback. Reiterate that infusion means applying some or all of the principles during classroom instruction on an ongoing basis. Student-maintained charts of growth in typing speed or in foreign language vocabulary, for instance, are infusion practices because they are continual and a natural part of instruction. Likewise, a portfolio of compositions, drawings, lab reports, etc., is an infusion practice in accord with the principle of keeping records of progress to know oneself.

Invite the cadre to indicate the kinds of knowledge a teacher in particular classes can give students. Press them to specify information for classes such as printing, English, geometry. Also encourage them to indicate the kinds of skills and interests a student could reflect upon as a consequence of taking such classes. Then ask them to suggest ways in which such interests and skills could be reported and regularly contemplated by the student. Ask, too, if there are ways of obtaining peer evaluations.

bj. 5 Emphasize that student record keeping and review of progress is a self-awareness practice that can and should be accomplished in every class. Use an example, such as the girl in biology who might chart her weekly performance on aspects of her course such as: preparing the specimen, recognition of identifications, lab write-up, understanding text, and quiz performance. Point out that such a chart shows her growth, thereby building esteem or pinpointing areas to study, and it clarifies her interests. Moreover, the chart will assist the teacher in pacing instruction and prescribing remedial assignments. Mention that such charting is a critical part of self-directed instruction because it enables the learner to know what has been done and what needs to be accomplished. Then ask cadre to indicate the particular courses where charting can be introduced and to discuss any difficulties which might interfere with charting.

Next, tell the cadre to spend 10 minutes in devising a chart which they can use to monitor their progress over the workshop. Remind them that recognition of accomplishment builds self-confidence and that you want to build their confidence by providing for the recognition of their accomplishment. Ask them, therefore, to identify the different accomplishments which they might achieve in the workshop and to devise a way of charting them which they can exhibit so that they can receive recognition for such accomplishments durin the workshop. Point out that recognizing accomplishment is the principle and the display of their charts is one technique for doing it.

Ask the cadre to reiterate some of the principles and have them recorded. Proceed to point out that the principles and their applications show that self-awareness and confidence continue to unfold. A person can be many selves but becomes only the self he or she creates. Knowledge of what is possible and of the probable impact of different roles is very important. Reiterate that infusion of self-awareness is a very important vehicle for helping students learn about themselves and different life roles in relation to the skills, interests and values embodied in school subjects. Pass out Attachment 2, which shows values associated with major careers. Ask each cadre to imagine himself as a teacher in 1776 and write down how he would be. Then ask each to imagine himself as a teacher in present-day China and share how he would be.

Proceed to distribute the infusion practices and have the cadre skim them for at least 10 minutes. Ask the cadre to note the questions which they have about particular practices and to prepare to discuss obstacles that they anticipate teachers might have in using those practices or similar ones. In 10 minutes start a round table discussion on questions about the practices and concerns in implementing them.

Obj. 6

Encourage cadre to answer each other's questions. Use the guided inquiry approach where appropriate, and then point out how you used it. Show the cadre the references to sources of additional practices, and invite them to share additional references or to describe particular practices with which they are familiar.

In the discussion, refer the cadre to practice No. 1, "Life Roles Today and Yesterday." Point out that this practice develops self-awareness within the context of a lesson. Ask the cadre to give similar examples of practices which could be used to build self-awareness in the context of other subjects (graph student's own time allocation, construct a totem, collage of own interests or abilities, write a fictionalized autobiography of self in historical era or in another culture). Obj. 4

Move to practices No. 2, "Genetics Chart," and No. 3, "Leisure Roles." Invite the cadre to discuss the feasibility of making such changes in lessons in particular subjects. Consider available time and resources, student interest, competence of teachers, and curriculum flexibility.

Next, consider practice No. 4, "Four Selves." Discuss how such a project is set up: the preparation time, the motivation value for students, the follow-through required, and the resources needed, including help from a cadre or community person.

Invite the cadre to share their experiences with any of these kinds of lessons and to identify actions which they believe are necessary for success.

Summarize the three infusion operations: revised lesson, new lesson, and a project. Note that the cadre will want teachers to use all, since infusion requires ongoing, systematic efforts in promoting self-awareness and self-confidence. Reiterate that self-awareness of ability and interest in mathematics is best learned in a math class because the student is doing math and can receive feedback from a qualified person. Likewise for English, printing, auto shop, science, and home economics abilities.

Have each district team meet for 20 minutes to compose questions for assessing growth in self-awareness and to construct a plan for persuading teachers in their district to infuse self-awareness. The teams should use at least four different item formats for the questions. Obj. 7 For its plan, each team should specify how it will approach teachers, who will present the argument, whose support will be solicited to make Obj. 8 the argument more persuasive, how much infusion will they seek and by when, and what rewards for the teachers will they list as consequences of infusion.

Time permitting, introduce the horse trading game. Tell the cadre that they can use it instead of the introduction exercise if everyone knows one another before the inservice.

Horse Trading Game

Be jocular and elaborate for effect. Present the following situation orally and prohibit use of pencils. Farmer Brown is getting a tractor and no longer needs his horse. He sells it to Farmer Smith for $70. Upon returning home he finds he has one day's plowing and won't get tractor for weeks. He buys the horse back for $80. After doing the plowing he sells the horse again to Farmer Smith, this time for $90. A bill of $90 is due and so he pays it with the money. His children learn that the horse is sold and are upset. He buys the horse back for $100, borrowing that from the bank, using the horse as collateral.

Pose the question; Who made the most profit?

(a) Farmer Smith earned $20
(b) Farmer Brown earned $30 because the horse appreciated in value
(c) Farmer Brown earned the inestimable joy of pleasing his children
(d) Farmer Smith earned $10
(e) Other

Have the cadre group according to their choice and, in each group, discuss their reasons for the choice. Then have them move to help those who disagree to see the correct answer.

Following that, have them reconvene and rate themselves on the Self-Observation Sheet (Attachment 3). Note that this offers an opportunity—only one—to observe how they treat others.

Attachment 1

DISCOVERING ONESELF THROUGH SCHOOLING

It goes without saying that your students need to know themselves in order to make successful careers. Unfortunately, self-knowledge is an elusive thing. It doesn't just happen. From earliest history, man has been urged to "Know Thyself!" because philosophers recognized that we are one of the most difficult things in the universe to comprehend.

People discover themselves by reflecting on what they do and by observing how others react to them. Our records, our performances, and evaluations of us by others provide the information that each of us synthesizes into a self-concept. In recent years the importance of successful performance and evaluation by others has been recognized. Too many failures and/or negative reactions by others lowers self-confidence. Without doubt, low self-confidence interferes with future performance and aspiration.

You probably already help students acquire accurate self-knowledge and enhance or at least safeguard their self-confidence through your grading procedures. You may even tell your students that you expect them to set goals and obtain feedback in your courses in order to expand and clarify their self-picture or self-concept. Nevertheless, we think that you will like to consider additional ways of strengthening students' self-knowledge, since they are likely to gain more self-knowledge through schooling than any other activity.

The workshop will focus on principles and related ways of promoting self-awareness and self-confidence through classroom activities. We will emphasize principles and methods that fit in with what you are doing rather than ones that are appropriate primarily for psychotherapy or personal counseling. We shall discuss examples of furthering self-awareness in the classroom and shall examine the underlying principles of such action. One technique, for instance, is a chart illustrating a student's progress in mastering subparts of a course. The related principle is that self-awareness is more likely to develop if a person receives quick, frequent feedback on specific performances.

We are looking forward to reviewing principles and learning about your methods. No one discipline has a monopoly in promoting self-awareness. Since your colleagues in the workshop will represent many disciplines, all of us should be able to learn something new by sharing our practices.

Resource Readings

Many writings have focused on self-awareness, although only a small number describe ways and principles of building self-confidence. It is recommended that you read Healy, C. C., Career Counseling for Teachers and Counselors (Houghton Mifflin, 1975), and Healy, C. C., Discovering You (McGraw Hill, 1976). Additional works to peruse include Rogers, C. R., Freedom to Learn, and Canfield, J., and Wells, H. C., One Hundred Ways to Enhance Self-Concept in the Classroom.

Attachment 2

Pass Out

OCCUPATIONS AND RELATED VALUES

Circle the one which doesn't generally belong.

	Values		
Accountant	Security	Adventure	Comfortable Work Place
Actor/Actress	Creativity	Adventure	Security
Assembler	Security	Fair Pay	Independence
Baker	Creativity	Supervision	Fair Pay
Barber	Helping Others	Creativity	Variety
Biologist	Mental Stimulation	Prestige	Variety
Bricklayer	Fair Pay	Achievement	Independence
Carpenter	Achievement	Adventure	Routine
Cashier	Helping Others	Around People	Security
Computer Programer	Mental Stimulation	Comfortable Work Place	Supervision
Corporation Executive	Helping Others	Prestige	Fair Pay
Dental Hygienist	Helping Others	Prestige	Mental Stimulation
Dry Cleaner	Achievement	Prestige	Fair Pay
Electrician	Achievement	Fair Pay	Leadership
Engineer	Mental Stimulation	Variety	Achievement
Fire Fighter	Adventure	Comfortable Work Place	Helping Others
Hotel Manager	Supervision	Security	Independence
Interviewer	Comfortable Work Place	Leadership	Variety
Jeweler	Helping Others	Creativity	Independence
Machinist	Leadership	Security	Fair Pay
Maintenance Worker	Achievement	Independence	Fair Pay
Miner	Adventure	Achievement	Helping Others
Occupational Therapist	Helping Others	Security	Creativity
Secretary	Comfortable Work Place	Helping Others	Adventure
Teacher	Independence	Helping Others	Adventure
Travel Agent	Comfortable Workplace	Leadership	Helping Others
Truck Driver	Independence	Mental Stimulation	Fair Pay
Veterinarian	Prestige	Achievement	Leadership
Waiter/Waitress	Fair Pay	Independence	Helping Others
Welder	Achievement	Comfortable Work Place	Fair Pay
Wholesale Sales Worker	Around People	Achievement	Adventure

Attachment 3

SELF-OBSERVATION SHEET

DIFFERENT DRUMMERS

INTERPERSONAL RELATIONSHIPS

YOUR BEAT:

Yes No

___ ___ 1. Were you aware of other people's feelings?

___ ___ 2. Were you a good listener?

___ ___ 3. Were you able to express yourself well?

___ ___ 4. Was your tone friendly at all times?

___ ___ 5. Were you aware of differences of opinions?

___ ___ 6. Did you allow the other person to express his/her feelings and ideas?

___ ___ 7. Did you have a friendly expression on your face?

___ ___ 8. Were you patient and calm and not overly aggressive?

___ ___ 9. Were you still friendly when the other person rejected your point of view?

___ ___ 10. Were you polite and tactful?

Module 2

PLANNING A TEACHER TRAINING INSERVICE FOR CAREER EDUCATION

Purpose

The module is intended to help cadre responsible for inservice training develop program development and management planning skills. The major thrust of the module describes a performance-based approach to program development, an approach rapidly emerging as the most common program planning framework among educational managers and associated in the literature with terms such as results management, management by objectives, and competency-based systems.

Rationale

Increasing numbers of educators have been persuaded by the argument that educational programs should be judged in large part according to the extent the learners can demonstrate the knowledge, skills, and attitudes expected as a result of instruction. This view contributes to a teaching-learning model in which achievement is held relatively constant and program elements are varied. If learners do not learn as expected, the presumption is held that something is wrong with the program. The responsibility for program effectiveness, accordingly, rests with the program developers and users. Developers and users are accountable for specifying the intended outcomes of instruction, elaborating programs of instruction which effect the intended outcomes, delivering the program, and describing the actual outcomes of the program's implementation. To the extent intended outcomes are not obtained, programs are modified and implementation is repeated, until a satisfactory level of success can be documented.

The technologies associated with the performance-based approach to learning--i.e., needs assessment, objectives-based instruction, criterion-referenced assessment, program evaluation--are new and unfamiliar to most practicing educators. At the same time, they are basic to true accountability and data-based decision-making. A cadre approach to career education infusion training demands the core of training specialists who will inservice regular classroom teachers be provided with program development skills which maximize the cadre's chances for success.

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LEARNER OBJECTIVES

1. The cadre will graph the components of a performance-based program of instruction, i.e., needs assessment, performance objectives, objective-based tests, objective-targeted instructional content and methods, implementation, monitoring, enrichment, and evaluation, such that the relations between the components are evident.

2. Given descriptions of instructional situations in which a classroom teacher has the opportunity to "infuse" career education with regular classroom instruction, but fails to do so, the cadre will infer the teacher training needs identified by the situation.

3. Given a list of teacher training needs in career education, the cadre will develop from the list at least three measurable objectives.

4. Given a statement of a measurable objective for an infusion program in self-awareness, planning, or decision-making, the cadre will construct a measure which tests for mastery of the objective.

5. Given a set of career education objectives and an assortment of career education materials, the cadre will reference the career education materials to the objectives for which they can be targeted.

6. The cadre will arrange in sequence the procedures to be completed during the planning of an inservice workshop: identify the participants, secure the site, obtain approvals from authorities, announce the session, produce materials, train staff, conduct the workshop, and evaluate the workshop's success.

7. Given a target date and the purpose of a career education training workshop, the cadre will develop a management and operations plan which describes the functions to be completed prior to the workshop, including dates by which each function must be completed so that any dependent functions can occur.

8. Cadre teams will plan an infusion inservice for their district/school such that each component of the performance-based approach to training is represented, i.e., needs are identified, performance objectives developed, objective-based measures constructed, instructional materials/methods are developed/selected, enrichment is provided, and procedures for implementation, monitoring, and evaluation are described. A management and operations plan for conducting the inservice will be included.

PLANNING A TEACHER TRAINING INSERVICE FOR CAREER EDUCATION

This module is intended to help cadre inservice regular classroom teachers in career education infusion. The notion of inservice is not limited to the conduct of a training workshop for relatively large groups, even as the notion of measurement is not limited to paper-pencil tests. Nonetheless, even as paper-pencil tests represent the most common form of measurement, so the workshop represents the most common form of inservice. Not forgetting that what is learned can be adapted even to the one-to-one tutorial, we will concentrate on demonstrating how to conduct the inservice workshop for a group about this size. Needless to say, the immediate model is our own conduct here.

The Performance-Based Frame of Reference

We proceed from the position that any program of inservice should be based on recognizable needs and elaborated from clear and verifiable statements of what learners should learn, or how they should change, as a result of the inservice. The success of the inservice will be determined by the performance of learners. If learners do not learn, the presumption is held that something is wrong with the program. Consequently, the cadre approach to inservice is performance-based. Cadre inservice begins by asking, "What should classroom teachers know about career education, and what career education infusion skills should they demonstrate as a result of training?"

Once that question is formed, the answer is found by completing a
Obj. 1 sequence of logically related steps. Each step represents a component

of the performance-based approach to training. These components include: needs assessment, learner performance objectives, criterion-referenced tests, objective-based instructional content and methodology, implementation, monitoring, enrichment, and evaluation. Figure 1 shows these components in relation to each other.

Review the figure until the components are clear and the relations among the components understood.

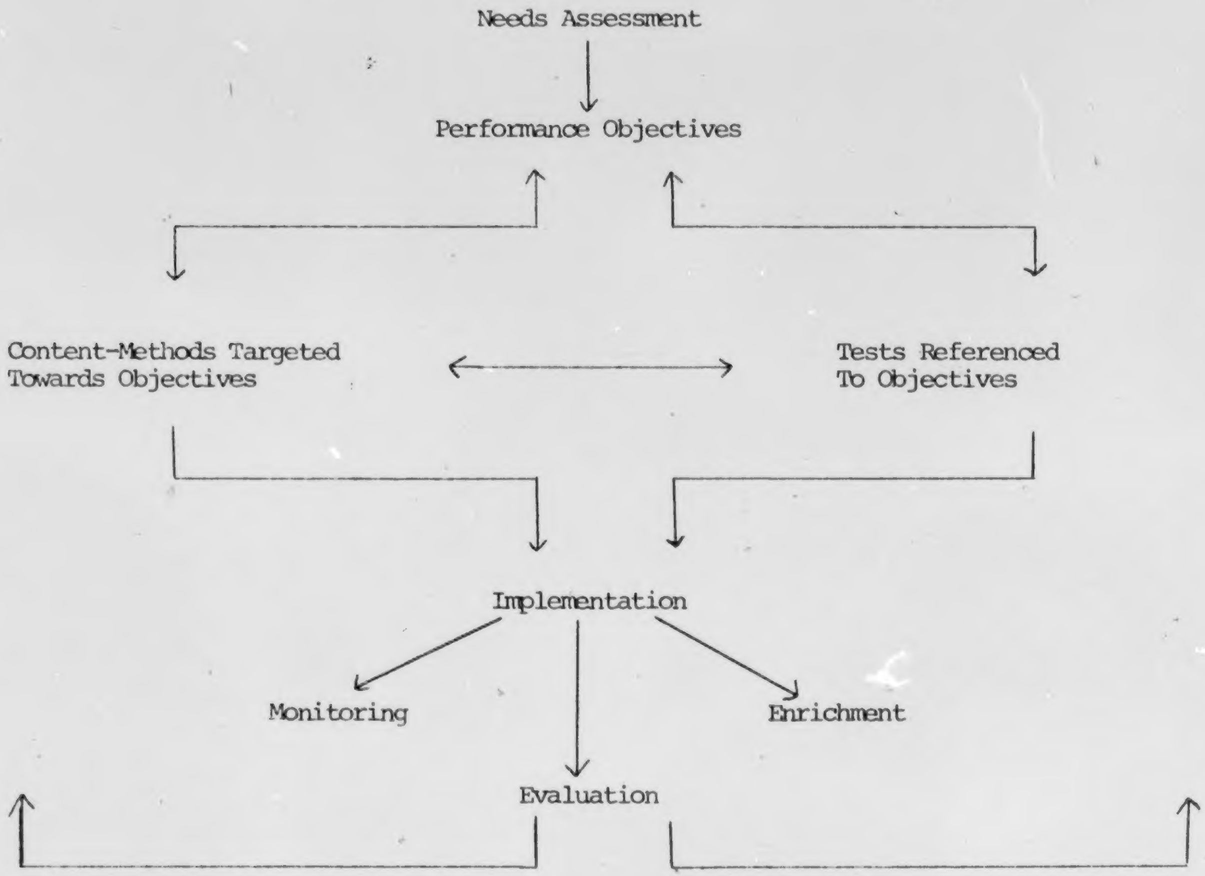
The figure shows that inservice begins with a needs assessment. The outcome of this step is the identification of the training or learning needs of a specific population. For cadre, the population is secondary classroom teachers who want to infuse career education with regular instruction.

Needs Assessment

A needs assessment can be conducted by survey sampling, by a search of relevant literature, by observation, or by self-reports. The literature is typically a useful first step. In career education, a literature review indicates that career educators need to increase students' self-awareness, improve their planning, decision-making, and problem-solving abilities, and expand their knowledge about career education and about the association between career education and several factors, particularly academic subject matter.

Teachers who want to infuse career education into regular instruction are guided by the considerable literature which explains career education as a developmental phenomenon requiring sequential training.

Figure 1.--Components of a Performance-Based Approach
To Instructional and Training Programs


Needs Assessment
Performance Objectives
Content-Methods Targeted Towards Objectives
Tests Referenced To Objectives
Implementation
Monitoring
Enrichment
Evaluation

Cadre are similarly guided towards the identification of career development needs of different students at different ages or grade levels.

Once these "theoretical" career development needs are identified, they can be compared to the actual developmental abilities of classes of students and the discrepancies will constitute the career development learning needs of the different student populations. Next, the real learning needs of students can be translated into learner objectives and teachers can determine the infusion practices which can most probably help students accomplish the objectives. Finally, the teachers can assess their own readiness for delivering the appropriate infusion practices under the appropriate instructional conditions, and plan to complete any training required. This process constitutes a useful career development needs assessment for both the teacher and his/her students. The developmental concept, as used here, means that students become ready for work, careers, or jobs through progressive preparation over time.

In the most popular developmental model, the grades K-6 are a period of self and career awareness; the grades 7-9 are a period of self and career exploration; the grades 10-12 are a period of self and career preparation. Teachers at these grades will want to identify and become practiced in infusion techniques designed to facilitate students' awareness, exploration, or preparation for work. Obj. 2

A leading career education theorist (Super, 1957) defines the developmental phases of career education as Growth, Exploration, Establishment, Maintenance, and Decline. To each he attaches age ranges.

Growth occurs best before adolescence; exploration begins with adolescence and continues past the high school years; establishment begins about the mid-twenties; maintenance starts at approximately 45; decline begins when a person slows the work activity of his/her life. According to this model, the infusion needs of high school teachers are related
Obj. 2 to exploration. The techniques used should maximize this stage of development.

A survey of local teachers who have been practicing infusion effectively reveals different techniques for different subject areas. The inservice planner presumes that teachers want to learn infusion techniques that have been demonstrably effective for students. The presumption can be verified by asking members of the teaching population if such a need exists.

Take time now to list the needs assessment steps you will take to inservice teachers at your school. After listing each step, explain what you feel you would learn as a result of taking that action.

Learner Performance Objectives

The next step is critical. You are ready to convert inservice needs into statements of learner performance objectives. Learner performance objectives are the essential element of the inservice because they tell in precise terms what the participants should know, or be able to do, or what attitudes they should form, as a result of the inservice.

Consider a few of the purposes this step serves. Most important, formulating learner objectives tells participants what is expected of them, providing them with incentive and direction. It tells the inservice developers what the targets of their materials or activities will be. It tells evaluators who measure the effectiveness of inservice exactly what to measure. And it tells decision-makers by what standards the inservice can be judged.

Although the importance of learner objectives has been widely conceded, the argument continues as to how objectives should be stated. How specific, for example, should a learner objective statement be? Opinions vary greatly on the specificity issue.

More consensus obtains, however, on the following characteristics of learner objectives: (1) they should contain behavior which can be measured precisely; (2) they should specify the criteria by which we can decide whether the learner's proficiency is acceptable; (3) they should identify any conditions which are necessary for a reliable demonstration of the learner's behavior.

The example below has each characteristic:

(3) conditions of evaluation
[When presented with job descriptions and work values listed

(1) learner behavior
randomly,] the cadre will match work values with the job most often

(2) criteria of proficiency
satisfying them with at least 75% accuracy.

Now consider the plight of the physical education instructor who has identified, for his new class of 40-year-old executives, a need for improved cardiovascular efficiency. He converts the need into the following objective: the learners will run a mile.

He develops a training program and intends to measure its success. Eventually all the men can run the mile, but the tests indicate that many run so slowly that no increase in cardiovascular efficiency is detectable. The learners have mastered their objective, but the desired effects were not obtained.

The instructor could have avoided the frustration had he realized the objective statement was incomplete. It should have read: the trainees will run a mile around a quarter-mile track within seven minutes. Look at the objective again. Draw a line under the expected behavior. Circle the criteria. Bracket the conditions. Its parts are: behavior, "run a mile"; criteria, "within seven minutes"; conditions, "around a quarter-mile track."

The skill of developing well-stated learner objectives is crucial to the evaluation of success and the targeting of instruction. The skill develops with practice.

Here are some career education infusion needs identified for high school teachers in the liberal arts. Convert each need into a learner objective.

1. Do not know what is meant by infusion.
2. Cannot associate their subject matter areas with job opportunities after high school.
3. Cannot relate students' abilities in the liberal arts to job skills or career opportunities.
4. Have no experience with infusion practices or techniques.

Obj. 3 A wide range of objectives might be derived from these four infusion needs. Three examples:

1. The teacher will know that infusion involves integrating career development activities into regular classroom instruction.

2. The teacher will identify at least six skill occupations related to the instruction provided in given high school liberal arts courses.

3. In a role-playing situation, the teacher will relate at least two occupational tasks to the major skills taught in the liberal arts subject.

Try now to develop two additional objectives for the inservice needs identified. Ask someone to verify the objectives as having the characteristics needed for instruction and evaluation.

Once learner objectives have been developed, the next steps are facilitated. These include selecting or developing materials and methods for accomplishing the objectives, and constructing tests to assess their mastery.

Whether working with instructional content or with tests, the inservice planner should remember that each is dependent on the learner objectives. For practice, from the list of materials below, identify which are suited to helping high school teachers help students accomplish the following objective:

> Given a number of occupations for which a math background is essential and the kinds of math skill required by each, the learner will determine the discrepancy between current math ability and the level of skill required by each occupation by listing the math skills he/she needs and describing the available training for developing his/her abilities.

List of Math Materials

Obj. 5 1. Careers in Focus: Exploring Business and Office Occupations

This manual describes 27 business and office occupations. It presents activities designed to help the student understand the kind of work done in a particular business or office occupation. The emphasis is on providing a job experience rather than on developing a particular job-related skill or enumerating the skills required on that job.

2. "Math Related Careers and Occupations"

This booklet lists 596 careers and occupations for which various levels of math are needed. It gives occupational area, job title, and number of people employed annually.

3. Occupational Outlook Handbook

This reference describes occupations in the following ways: job activities, places of employment, abilities required, salary range and working conditions, training available, advancement opportunities, current demand, and sources of additional information.

4. "What Can Math Do For You?"

Concise, easy-to-read description of how math is used on the job in numerous occupations. Highly diagnostic. A simple way to find out if you have the mathematical equipment for this job. Sources of additional information are provided.

5. "25 Technical Careers You Can Learn in 2 Years or Less"

Describes 26 types of technicians. Lists different types of schools where training can be acquired. Projects the supply and demand trends for the next 10 years.

6. "What It Takes to Be a Computer Programmer"

A highly detailed description of all necessary coursework and the kinds of math skills required. Describes working conditions, hours, and profiles the life style of three typical computer programmers.

Testing for Mastery of Objectives

Constructing valid tests of learner objectives requires the test items sample the behavior specified by the objective. In general, objectives which are stated broadly yield gross or global measurements. Objectives which are precisely stated yield more precise, criteria-specific measures.

The best way to determine if your test samples the behavior called for by the learner objective is to ask a content expert to make a value judgment. If different people develop the learner objectives and the tests, a recommended procedure for establishing content validity, the developer of the objectives can decide whether the tests have measured his objectives accurately. If not, the objectives should be revised, to make matters more clear or more precise.

Below is a learner objective for twelfth graders involving the

Obj. 4 concept of self-awareness. For practice, construct a test which would tell us whether students had mastered the objective. By mastery is meant the ability to perform the most difficult behaviors defined by the objective statement.

> Objective: Given a list of occupations, at least half of which require training beyond high school, the student will express confidence in his ability to develop his potential by choosing, as possibilities for himself, at least two occupations which require abilities he does not yet have.

Now construct a measure of the following: The teacher will differentiate a series of given instructional practices by identifying which involve career education infusion, and which do not. Ask someone to pass judgment on your measures. Ask someone whether the items match the objectives and sample adequately the behaviors called for.

Evaluation

After learner objectives have been measured, the inservice must be evaluated. The step is completed by comparing actual results with expected results, and by making value judgments about the discrepancies. (For a detailed explanation of evaluation, refer to Module 6.)

Management and Operations Planning

The cadre who completes the steps outlined above has conducted a performance-based inservice. With practice, these skills will develop sharply. Prior to the conduct of inservice, however, is another planning process. This is management and operations planning. In addition to developing learner objectives, programs, and tests, the inservice trainer needs to develop planning objectives.

By planning objectives is meant describing the major management steps required and the operations to be completed in order to complete each step. To conduct an inservice workshop, for example, management and operations planning will usually include the following management steps:

Obj. 6

1. identify the participants
2. secure the time and site
3. obtain approval from designated authorities
4. announce the workshop
5. produce materials and methods
6. identify and train a workshop staff
7. conduct the training
8. evaluate the workshop effectiveness
9. report as to effectiveness to decision-makers

A number of interim steps or operations must be completed during each phase. To identify participants, for example, letters of invitation will often be necessary.

The management steps and operations will differ depending on the learner objectives and numerous situational factors. A point to remember is that some operations will be dependent on others. Management planning becomes a problem when the needed time sequence is neglected or confused, causing interruptions, backlogs, or breakdowns in the planning process.

Some Basic Workshop Management Considerations

Here are some basic considerations for completing each of the management steps.

1. To identify the participants, planners should consider the size and representativeness of the training sample in relation to the purposes. As career education cadre, trainers will prefer, where feasible, to inservice teachers at the four high school grade levels, including as many subject matter areas as is feasible. This kind of group is most

likely to maximize the ripple effect the cadre seek. That is, by training different teachers from different grade levels, cadre are most likely to impact the greatest possible student population.

Importantly, cadre will want to inservice those teachers who express a commitment to career education infusion. Such teachers are more likely to perceive the inservice as important enough to take the time and effort needed to integrate career education with their regular classroom instruction. Infusion requires some new planning time, and teachers who feel they do not have the time are not likely to implement whatever inservice they receive.

The identification of inservice recipients, therefore, may be the most crucial planning step you will take, the step that will largely determine the ultimate impact of cadre inservice.

2. The site is a simpler matter. In most schools and districts, rooms are traditionally designated for inservice. Use them, unless more space is needed. Planners should always check the site and reserve the time and date they prefer.

3. Before announcing the inservice, planners should obtain whatever approvals are needed from district and school officials. Even if inservicing permission from the school principal is not needed, protocol demands he/she be informed. For cadre purposes, as has been pointed out previously, communicating with the principal is mandatory, as cadre favor a collaborative approach to career education infusion. The reasoning is that the support of the principal is indispensable to a continuing program of infusion throughout the school system. Similarly, the support of the

guidance function is critical. So is support and cooperation from other sources who might eventually become involved. The support of these resources is best secured prior to the start of inservice.

4. Cadre can announce their inservice in person or by letter, perhaps with a telephone follow-up. The invitation should state the intended outcomes of the inservice for teachers and students. It should indicate clearly what the inservice activities will be and what will be required of teachers after the inservice. The invitation should end with a strong statement of the benefits intended by the inservice and its subsequent transportation to the classroom.

5. The selection or development of materials and methods usually begins once the learner objectives have been developed, a process already described. Now we refer to the management steps of production: typing, proofreading, xeroxing, collating, packaging, and transporting. No step can be omitted. A realistic timeline and adequate staff are the keys to success.

At times workshop planners need to identify and train an inservice staff. Training may be limited to discussion sessions or may include practice in delivering the workshop. The result of this step should be a clear idea of who is responsible for doing what at each stage of the inservice.

6. The conduct of a workshop should include some attention to what has been referred to in the literature as process evaluation. Through the use of observers or by activity charting, or by written or oral feedback, cadre should obtain information which indicates the extent to which the

the inservice was delivered as planned. Particularly, the materials should be used as was intended. If not, the inability of participants to accomplish the learner objectives may result, not from faulty design or inadequate learning, but from poor implementation.

7. An evaluation of the inservice can be completed effectively only if participants are given measures of the inservice objectives, and the results of these measures are interpreted by decision-makers in relation to expected results and supplementary data, such as the process evaluation data.

Cadre Planning

The task now is to develop a management and operations plan for the
inservice you intend to conduct at your school, or within your district,
during the 30 days following cadre training. Use the management steps
listed on pages 89-92. Review the brief considerations of each management
Obj. 7 step and identify the operations you must complete to accomplish each
step.

Make your plan as realistic and as complete as is possible during the next 30 minutes. Do not consult with anyone. Afterwards, another cadre will review your plan and consult with you about it.

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Finally, the inservice planning described here is applicable to a variety of training situations, from large group workshops to small groups, to the one-to-one relationship. In each case, the cadre's attention to learner performance objectives and management planning is the key to success.

Module 3

INFUSING CAREER PLANNING AND DECISION-MAKING INTO CLASSROOM INSTRUCTION

Purpose

This module is designed to recall key concepts in planning and decision-making for cadre, to demonstrate a method of teaching these concepts to teachers, and to provide them with a set of strategies for infusing career decision-making and planning into teaching so that they can inservice teachers in the use of these strategies.

Rationale

Career planning and decision-making require awareness of possible plans and decisions, knowledge that plans and decisions are effective to the extent they further one's values, awareness of different values, awareness of a systematic approach to planning, knowledge about information sources, and practice in successfully acquiring information and in deciding.

Since our education system is designed to equip a person for operating independently in a democracy, it should recognize a person's need to acquire these skills and knowledge, and it should assist the person in acquiring them. Most school subjects can be structured so that they contribute to a person's development as a planner and decision-maker. When informed of this, when reminded of key concepts in planning and decision-making, and when given appropriate strategies, secondary school teachers will agree to infuse career decision-making and planning into their teaching. Moreover, they will accord these processes a meaningful place by assessing whether students can use them effectively. Planning and decision-making are habits. If they are exercised in adolescence, adults will have them. If they are obstructed or not encouraged in adolescence, adults are unlikely to acquire them. Formal education fills so large a part of an adolescent's time that it must stimulate and reinforce planning.

Preparation

Read Chapters 3 and 4 in Healy, C. C., Career Counseling for Teachers and Counselors. You may wish to peruse the high school workbook, Deciding (New York: College Entrance Examination Board, 1972), by H. B. Gelatt, B. Varenhorst, and R. Carey.

LEARNER OBJECTIVES

Cadre will:

1. List the six steps comprising the generally accepted planning and decision-making sequence.
2. List five commonly accepted principles of improving decision-making.
3. Define concepts important to decision-making and planning, including values, decision, plan, reliability of information source, brainstorm, contingency, alternative, risk, utility to chooser.
4. Distinguish between goals with performance criteria and goals without them.
5. Given a problem in career planning or decision-making, identify the step at which the problem occurs and suggest principles derived from the behavioral sciences which can contribute to its solution.
6. Given a performance objective in the infusion of career decision-making or planning, describe a project in sufficient detail to be followed by a teacher, for achieving the objective.
7. Identify seven school-related decisions/plans which students can make, such as: extracurricular activities, project assignment, and homework time.
8. Given a lesson plan for any high school subject, identify how it could be altered to infuse decision-making or planning.
9. State the four reasons for infusing career decision-making and planning presented in this module.
10. Feel that decision-making should be infused.
11. Feel able and willing to show teachers how to infuse decision-making.
12. Describe the method modeled of showing teachers how to infuse career decision-making/planning.
13. Given a description of an infusion practice for an academic subject, write two questions to assess learning resulting from the practice.
14. Within three months assist teachers in infusing career decision-making and planning by acquainting them with the concepts and practices of this module.

INFUSING CAREER PLANNING AND DECISION-MAKING INTO CLASSROOM INSTRUCTION

State your purpose and rationale and have cadre read the following paragraphs on career decision-making and planning. When they have finished, invite questions or comments. Defer answers to questions covered later.

Career Decision-Making and Planning

Secondary students make many career decisions. Most obvious are decisions concerning courses and extracurricular activities. But such choices are only the tip of the iceberg. Almost every day adolescents decide again and again how much time and energy to give their courses and activities. They also can make other career choices. Their tests and homework assignments, for instance, often provide options among which they may choose, and again provide practice in decision-making.

Some of these decisions are more important than others in determining the shape of a career. All decisions, however, offer the student a chance to learn how to be a better decision-maker. Since modern careers involve continual decision-making, one's career is likely to be more successful if he or she has developed the habit of good decision-making early in life. Consequently, an important career development need of students is to learn to use these decisions as a vehicle for improving their decision-making.

There are several principles to follow in order to improve one's decisions. The principles are guidelines which often provide satisfying outcomes, but they are not formulae that guarantee that a particular choice will be the best possible. For example, one principle states that use of a systematic approach increases the likelihood of a wise decision; while a second principle advises the decision-maker to study the outcomes of people who have already made the decision in order to better estimate the probable consequences of different courses of action.

You already know many principles, although you may not call them that. In the workshop you will be guided to recall or discover the principles which lead to better decision-making by reviewing how you made crucial decisions. The workshop group will then agree on several of the most important principles and examine how they can be taught to students. Recognizing how you learned to use these principles should make it easier for you to show your students how to use them.

You will probably recognize the following general steps in decision-making:

Obj. 1

1. Specify your goal
2. Find out the alternative ways of achieving it
3. Examine the alternatives
4. Select the best alternative for you
5. Carry out that alternative
6. Evaluate your results

Many goals are not achieved immediately upon making a decision. Instead, choosing a goal is frequently only the first step in achieving it. Obj. 3 After a decision is made--that is, after the person has chosen one alternative from among two or more--a plan must be formulated to increase the chance that the goal can be achieved. A plan is a strategy consisting of a series of steps, or activities, for achieving a goal. Once a goal is chosen, the planner determines the alternate methods of reaching it. For each alternative he/she delineates the actual actions to be taken, the time involved, the energy and cost of each activity, his/her capability of doing each activity, and the feasibility of doing each in view of other commitments. Then the planner selects the best alternatives; that is, makes a decision within the plan, and proceeds to execute the plan's actions. As the plan is acted upon, he/she monitors progress against the steps of the plan and continually reaffirms the decision to follow the plan, or perhaps modifies the plan, or even replaces the original goal with a new one and constructs a new plan.

For effective planning, the person should specify a goal in terms of the
bj. 4 performance criterion he/she will achieve. For example, the high school senior who decides to be a secretary will be better able to make a plan if the goal is designated as: "Following secretarial training, I will type at least 70 words per minute, take dictation at 90 words per minute, be knowledgeable of currently acceptable business correspondence formats, and do light bookkeeping independently." Simply defining it as "graduate from secretarial training program" will: limit alternatives for achieving it, make it more difficult to judge whether a particular alternative will produce the goal, make it harder to monitor progress and to evaluate when the goal has been achieved, and not guide the planner in choosing among the electives of a secretarial training program.

Of course, the planner can do additional things to improve planning, such as: obtaining accurate information, reviewing the impact of previous plans, and obtaining expert advice. These and other actions will be discussed in the workshop.

Once a goal has been decided upon and a plan made, problem solving becomes important. Like decision-making and planning, it is a systematic process. Indeed, it is closely related to both, for it involves the actions taken to remove, or circumvent, an obstacle to a goal or one or more steps of a plan. Moreover, it involves the same repeatable steps as decision-making, with the exception that the step of specifying the obstacle(s) and its source is inserted following specification of the goal.

Helping Students Who Have Difficulties in Decision-Making, Planning or Problem Solving

Beyond providing instruction in decision-making, planning and problem solving and affording opportunities for their practice, teachers can help students who are having difficulty by first identifying the step at which the student is having difficulty and then showing the student alternative ways of completing the step. For example, if the Obj. 5 student can't formulate goals, the teacher might advise the student to think of what those he admires would choose, might teach him about brainstorming, might encourage the student to review his interests or use an interest test to review them. Or if the problem were in deciding among alternatives, the teacher could: suggest that the student consider the consequences of not deciding, point out the possibility of correcting a poor decision later, direct the student to additional information, or help the student combine alternatives to increase the possibility of success.

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Invite cadre to participate in an exercise for clarifying effective decision-making. The premise of this exercise is that contrasting effective and ineffective decisions shows a person the strategies which work best for him/her. Have each cadre recall privately three recent financial transactions which were satisfying, and have him/her deliberate about the circumstances; what made the transactions pleasing and why did they happen as they did. Urge each cadre to note commonalities among the three pleasing events. Next, have each cadre consider three cases of spending money where he/she was not pleased by the results and recall the circumstances, noting which were common to the three transactions. Then tell them to contrast their pleasant and unpleasant transactions, and as they do, ask volunteers to share what they discovered contributed to successful spending for them.

As cadre share, note to what extent they are naming the principles which enable decision-making and planning to be effective. Point out and define or elicit definitions of key concepts such as: (1) "values" as the standard for judging the decision successful; (2) a 6-step systematic approach to deciding; (3) compromise or accepting a need to forego part of goal to make acquisition of other parts more likely; (4) decision, a choice of one alternative from among two or more; and (5) plan, a sequential set of steps for achieving a specific goal.

5

Assign a recorder to list the principles which are stated and continue to elicit principles from the contrast exercise. Have cadre draw from other experiences too, until all of the following are stated. (If necessary, use cue questions to elicit some. Invite the cadre to copy the principles after the last is elicited.)

Obj. 2

1. Be sure you know what you want--your values--and how the alternatives (different courses of action) relate to them before choosing an alternative.
2. Get information about the likely consequences of each alternative.
3. Think through what you are deciding in a systematic way--your goal, ways of getting it, and the likely consequences of each, the practicality of each alternative, and how you will know whether your decision is satisfying.
4. Get your information from people or sources which are likely to be accurate.
5. Think a decision through but don't wait until it is too late to act.
6. Calm yourself and be objective in considering the importance of particular goals and the pros and cons of available alternatives.
7. Recognize and accept responsibility for making your own decisions rather than letting them happen or expecting others to decide for you.

Amplify each principle as it occurs. Note, for example, that a person usually has several values and that a decision can involve more than one. State that values often conflict, making it important to order one's values in a hierarchy. Encourage the cadre to name some values such as prestige, money, security, variety; and to illustrate how several are involved in one decision, sometimes in conflict. First have them enumerate ways of verifying their values, such as: self-rating, debate, values inventories; and then have them name methods of identifying priorities attached to them through such means as rank ordering, forced-choice comparisons, and value auctions.

With regard to information sources, ask the cadre how sources differ in ability to provide accurate information about occupations and how one can know to which source to go. Use cue questions if necessary to elicit responses such as: go to a source that has provided you or others with accurate information on the topic previously; try to obtain information from two kinds of sources; consult a source with recognized expertise.

As regards predicting likely consequences, ask cadre to name some of the techniques which have worked for them. Note techniques such as checking out how a decision turned out for those ahead of me, thinking through how it is supposed to work and how it could fail, getting advice on the alternatives, estimating how much time and energy you have to follow through on the alternative, even if something--a contingency--should obstruct follow-through. Clarify that a contingency refers to an event which could alter the attractiveness or accessibility of the goal. Note, for example, how the contingency of increased funding increases the attractiveness of career education.

The criteria by which to judge the success of a decision are very important. Be sure that the cadre recognize the importance of concrete, measurable criteria stated in performance terms. Press them to say that the presence of these characteristics enables them to know when they are successful. Help them be specific through open-ended questions and paraphrasing, if their initial answers lack specificity. Remind them of the specifics in the secretarial goal referred to above (see p. 111), and ask the cadre to give additional examples.

Introduce the concepts of "risk" (the probability that an alternative will produce the goal), and "utility for the chooser" (the importance and priority of the goal for the chooser), pointing out differences in risk taking and utility of different goals among cadre reflected in their responses to satisfying financial decisions. Let cadre discuss how different decisions lend themselves to different levels of risk, and how one can know the risk to accept and the time to wait in deciding among options. Help them discover that, for example, in matters where you have been successful, or where the possible gain is high but the loss would be low, more risk is warranted. Encourage cadre to name other situations in which risk should be high or low. Note, too, the possibility of sometimes reducing risk by combining or choosing two options. Be sure that you note the reversibility of many decisions, and the comfort which this offers the decision-maker.

In terms of calm deliberation, invite cadre to tell how they compose themselves before decisions. Elicit discovery of such principles regarding anxiety as:

1. High anxiety reduces a person's capability of taking a broad perspective or doing a complex task, although it may expedite doing an habitual or simple task.
2. Breathing exercises; soft, soothing music; pleasant, comfortable surroundings in which people are relaxed reduce anxiety.
3. Stimulants like coffee, tea, liquor, or cigarettes; hurried travel; conflict; fatigue elevate anxiety.

Deliberation time is, of course, a decision itself. Elicit from the cadre recognition that deliberation time depends upon such factors as: importance of decision, kinds of information which are pertinent, likely value of additional information, reversibility of a bad decision, period available for deliberation. Note that prioritizing decisions frequently is used in management to insure good allocation of decision time. Mention the proverbs, "strike while the iron is hot," and "fools rush in where wise men fear to tread" as common-sense cautions against the extremes.

As regards assumption of responsibility, explain how we often fail to recognize that we can and need to decide. For example, students frequently ask: "What should I take?" or, "How should I proceed?," when what they really need to ask is, "What are the alternatives among which to choose?" Adults, too, often incorrectly believe that some "they"--the government, the company, etc.--is limiting choices. How often, for example, have you heard a teacher say, "I'm expected to teach this lesson this way, even though my students already know it"? Often what is really expected is that the students be able to perform in a certain way. This teacher, rather than teach, might test the students and report the results, and then would find that "they" had no such intention of telling him how to teach.

Ask cadre how they keep abreast of decisions that are theirs to make? Elicit such strategies as: (1) when given instructions, confirm what is being asked--whether just outcomes or specific approaches; and (2) keep abreast of what peers and those further along than I, and those in similar institutions in other parts of the country are doing. Follow up by musing about how students can learn about choices for which they need to retain responsibility. Elicit such means as interacting with students in higher grades, and using simulations requiring future-oriented planning.

Pause for questions, and if none are forthcoming, solicit them. Encourage reiteration of the definitions of the key concepts. Then ask cadre to summarize principles related to decision-making and planning.

Next, invite the cadre to tell how they learned to follow these principles of deciding. Point out that many are learned "through experience." Consequently, argue that an effective way of teaching students to use the principles is through the decisions and plans which they can make in school. Proceed to have the cadre brainstorm some of the major and minor decisions/plans which students can make. Major
Obj. 7 decisions include selection of extracurricular activities and amount of energy to give to school. Minor decisions include selection of projects, test questions to answer, time for completing a particular project, or plans for a weekend. (Invite a cadre to define "brainstorm," especially noting that it involves delaying evaluating the ideas generated.) Have the decisions and plans recorded and suggest that the cadre copy the list.

Proceed to discuss the importance of an educator's providing a framework for deciding, rather than deciding for a student. Point out that without a chooser's awareness of a decision to be made, actual alternatives, and actual consequences of a choice, there can be no decision. Encourage cadre to indicate how classroom teachers can create a structure in which the three elements of awareness, alternatives, and consequences are present in classroom instruction, not merely as enrichment.

As discussion culminates, form small groups and ask each group to construct test questions which would be appropriate to measure the objectives in particular practices. Argue that unless such questions appear on tests, students may believe that a teacher does not consider decision-making and planning to be important. Assign each group a different practice, picking those practices of most interest to the workshop participants. To help clarify the task, list one or more of the following examples on the blackboard:

Questions Indicating Infusion

History: (Let X = historical figure)

bj. 13 What alternatives were available to X, why did he choose the one he did, how did he feel about the outcome, and why do you believe this?

How could X have learned about these alternatives?

Why was X happy or sad? What other things would have made him happy/sad?

Science:

What is the difference in the methods used to study a scientific problem and make a career decision? Discuss the differences in objectives, method of selecting alternatives, and method of judging effectiveness.

English:

Write an essay in which you discuss the decisions which you can make about the direction of your life in the next three years. In it, indicate the outcomes which different alternatives will provide, the costs in time, energy, and money of different alternatives, and how you know that you have these decisions to make.

After 15 minutes, ask a member of each group to write that group's questions on the blackboard. Invite all cadre to comment or to ask for clarification.

Next, pass out the infusion practices. Refer the cadre to practices No. 8, "Magnetics," and No. 9, "Decision-Making Exemplified in Literature," pointing out that these practices exemplify revised lessons which are part of a regular curriculum. Generate a discussion of how teachers can select lessons to revise, what the teachers must do, the advantages and disadvantages of such revisions, and the need to evaluate the student on the revised elements of the lesson as well as on the original lesson.

Proceed to have the cadre look at practice No. 10, "Vacation Plan," observing that this is a new lesson to be added to a particular curriculum. Discuss the merits and feasibility of adding such lessons, including the training necessary for teachers, preparation and follow-up time for students, and necessary permissions, materials, or equipment.

Then look at practices No. 11, "Community Recreation Facility," and No. 12, "Chamber of Commerce," which are projects. Lead a discussion of how one can create projects which teach principles of planning and decision-making, how one excites student and community interest, and how one can justify this as a contribution to the curriculum. Elicit at least one distinct project for each planning step, noting that many projects bolster more than one step.

Close this infusion section by requesting cadre to peruse the remainder of the practices so that they can share any practices which have worked for them but are not included in our set. If questions are posed about implementation, use the guided-inquiry method to develop answers.

Obj. 6

Proceed to ask the cadre as a group to state why they should show teachers how to infuse decision-making and why they believe they will
bj. 9 be able to accomplish it. Elicit at least four reasons. If obstacles are noted, guide cadre to brainstorm solutions. (Refer to Rationale if necessary.)

Close the session with the performance test. When a cadre has completed the test successfully, congratulate him/her and point out that this achievement is a major step in showing teachers how to infuse.

Module 4

INFUSING CAREER AWARENESS

Purpose

This module is intended to recall the aspects of work which are important in the selection of occupations, to consider ways of entering occupations, to review important features of the world of work, to examine ways in which high school subjects can be related to working so that students increase their understanding about work, and to review methods of assessing student growth in career awareness.

Rationale

Work as it is known today is changing, and the changes in large part reflect growth in knowledge. Job trends indicate that the occupations requiring new knowledge, specialized learning ability, and advanced training will employ increasingly larger numbers of people, while jobs requiring limited knowledge and skills are being eliminated. More and more the work of our society is linked to its knowledge production and dissemination. Consequently, a natural place to acquaint youngsters with career opportunities is the classroom in which they are discovering knowledge and acquiring learning skills.

The mission of our schools has always included preparation for work. In a complex, democratic society one is not prepared for work unless he or she is aware of the range of occupations within the society and has learned how to find out specific details about such occupations. The "good" teacher has traditionally assisted students in discovering the relationship of his/her subject to work. With the emergence of career education, the importance of such exposition is more evident. Equally clear is the need of the teacher for inservice, since knowing and teaching about occupations is much more difficult because occupations have multiplied and become more complex. Consequently, even "good" teachers benefit from reviewing methods of relating their subjects to the pursuit of a career.

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Add that infusing career awareness refers to developing an understanding of a range of occupations and their interrelationship through modification of regular classroom instruction in each subject. In other words, occupational and educational understanding is to be developed along with other subject matter objectives. Invite cadre to justify infusion and to refute potential resistance, eliciting at least four justifications.

Next tell the cadre that youngsters need to learn such information about many occupations. Ask them how to choose the occupations with which to acquaint students. Explain that there are about 87 million workers employed and nearly 8 million others seeking employment. These people work in more than 23,000 occupations. Point out that occupations can be classified in terms of levels of training required (and this approximates average salary), fields employing similar abilities and satisfying similar interests, and industries (such as hospital, school, manufacturing, commerce, etc.). Say that evidence suggests occupational preferences of mature youngsters cluster within fields and that it is desirable for youngsters to appreciate the general bases of the field classification; that is, that the jobs in a field require similar abilities and satisfy similar interests. Tell the cadre that in vocational choice it is desirable for a student to begin by defining one or two fields of preference and, after exploration within that field, to focus on a few particular occupations in the field. Add that occupational changes tend to be within the same or adjacent fields and that there are few changes between remote fields. In answer to your opening question, guide the cadre to state that every youngster should learn about the major occupations in each category in order to begin the focusing process.

Obj. 4

Refer to the chart of the distribution of jobs by level and fields (Attachment 1), using the Holland classification. Guide the cadre to discover the basis of each field and level.

Enumerate ten occupations, asking the cadre to identify the five with the largest number of workers. These five are underlined in the following list: *building custodians*, accountants, nurses, *retail salespersons*, *secretaries*, *teachers*, *truck drivers*, carpenters, computer programers, police officers. Then name the following ten occupations and ask the cadre to pick the five which are increasing in relative size most rapidly (again the correct five are underlined): assemblers, *bank workers*, carpenters, *computer programers*, *industrial repair personnel*, laborers, *nurses*, *typists/secretaries*, truck drivers, and retail sales personnel. Note that this kind of data is available in the *Occupational Outlook Handbook*. Add that this book provides other useful data such as salary, duties, requirements, supply/demand for about 900 of the best known occupations. Have cadre brainstorm additional questions which should be asked regarding supply/demand of occupations. Elicit at least: number of openings and applicants each year, number of openings in local community, training positions open and number of applicants.

Next discuss ways of training for occupations. Invite cadre to describe: apprenticeship, on-the-job training, vocational/technical school, armed forces training, junior/community college, and college/professional school. Complete their descriptions and correct inaccuracies in a positive manner.

Explain how our knowledge in aviation led to the occupation of airline pilot, our advances in electronics to electronics technicians, and our need for more capital and understanding of economics to financial advisers. Form the cadre into groups for each major high school subject and assign each group the task of brainstorming for ten minutes hobbies and occupations now associated with it, and ten minutes on how new knowledge developments in that subject are likely to affect these occupations and add new hobbies and occupations. For example, increased understanding of topography is likely to make this a more important math tool, create new jobs in social science research and new teaching jobs. Have each group share its speculations. Note that information about corresponding occupations and hobbies should be disseminated through subject classes. In regard to change, note that John Holland believes that persons will be able to identify the new occupations which are suitable for them if they know the field which suits. That is because all new occupations will fall within the six fields. bj. 10

Proceed to focus discussion of the impact of the future on occupations and career choices into a consideration of how youngsters can be prepared for the future. Elicit recognition that learning information gathering and processing will be as important or more important than just learning facts, because a career, by definition, involves position change, and each change requires new information. Moreover, rapid change is making information about an occupation today obsolete within a short time. Nevertheless, recognize that facts will remain necessary for effective decision-making. bj. 2

Follow up by considering principles for promoting learning skills. Present principles such as: (1) information seeking will be learned if it is challenging, interesting, and if precise feedback is given on the learner's effectiveness; and (2) information seeking will become habitual if it is exercised, expected, rewarded, and observed in esteemed models. Solicit other principles and invite cadre to describe the concrete application of such principles about which they know. Obj. 7

Point out that accurate information is more critical to effective career management than the habit of information gathering. Normally a person doesn't expect a football coach to tell him/her about his/her aptitude for science or his/her electrician to forecast accurately about the number of new electrician jobs five years from now. The science teacher and the manpower expert should, however, be able to give reasonable answers to such questions. Educators are aware of the need to sort out accurate from inaccurate or incomplete information, but students, immersed in the distortion of television which often sacrifices truth for entertainment, must learn how to distinguish accurate from inaccurate information.

Pose the following true/false questions to clarify what students need to be taught about information gathering: Obj. 8

a. An electrician will be able to give a more accurate picture of what an electrician does than the contractor who hires him.

b. Shadowing your mailman for a day will teach you more accurately about the duties of mail carrier than the Post Office's job description.

c. Interviewing students in a training program will tell you how it feels to go through the program more accurately than a brochure or film on the program.

d. A college's admissions officer will give more accurate information on your chances of entry than your neighbor who teaches there.

e. "Emergency" portrays the duties of paramedic more accurately than a documentary on paramedics.

f. The majority opinion of a class of college students about the duties of the profession for which they are preparing is likely to be more accurate than the opinion of one person in that profession.

g. Testimony based upon referenced sources is more likely to be accurate than testimony for which the sources are not listed.

Proceed to a discussion of how students learn. Ask the cadre to
bj. 5 read Attachment 2, "Occupational and Educational Exploration." Guide them to recall that written material can offer a broader perspective on a subject, film and audio tape a more concrete representation, and simulation the feel of a particular duty. Note that each method makes a contribution, and point out how knowledge obtained by reading or hearing depends upon the ability of the student to relate the abstract concepts to concrete experiences.

Turn next to the infusion of career information into teaching
bj. 6 through modifying the form of classroom instruction so that it is like work. Mention that this is based on the principle of transfer of learning. Note that many work activities have prescribed formats, continue over several hours, permit free movement/conversation, and often require teamwork. These can be simulated by requiring lab reports on a fixed form, enabling students to work blocks of time in a multiple discipline project, and requiring students to do group rather than individual tasks. Solicit from the cadre other general ways in which work now differs from typical classroom activities, but with some effort could be simulated in classes. Invite cadre to share their

feelings about efforts such as these which are known to them and to indicate how these simulations can be conducted so that they succeed.

Consider who and what on the local level can help teachers to infuse career awareness. Elicit resources such as: the librarians, school employees, volunteer groups, audio-visual section, students' parents. Note that Attachment 3 can be used to help identify helpers.

Announce dramatically that the focus of the module will now be infusion practices. Ask cadre to summarize the six characteristics of occupations to be learned, the different levels of learning, and methods by which classes can be restructured to simulate work more closely.

Ask the cadre to inspect the infusion practices for ten minutes to
Obj. 9 see the variety of ways in which career awareness has been infused.

Have them look at practice No. 18, "Awareness through Caricature." Note that it involves modifying a regular lesson to provide information about occupations related to the subject. Invite cadre to comment on how they might help teachers to do this with existing lesson plans. Move to practice No. 19, "Does Number 2 Try Harder?" Point out that this lesson enables students to actually perform duties similar to those done on the job. Generate discussion of how the cadre can motivate and help teachers to reconstruct lessons so that they are like this. Consider particular courses and ask for specifics such as involving community people, using school plant, etc.

Finally, turn to practice No. 20, "Follow-up of Graduates," which is a class project. Encourage the cadre to discuss the feasibility of incorporating such projects into various subjects. What information and resources are needed and how can they be obtained? How much time for such projects will the curriculum permit?

Describe and circulate for perusal copies of the occupational knowledge scales from the Super, et al., Career Development Inventory, the Crites Career Maturity Inventory, and the Healy and Klein New Mexico Career Education Test Series. Note item formats and content. Solicit other suggestions for evaluating growth in career awareness and have cadre discuss responsibility for obtaining measures of student growth in career awareness. Invite cadre to discuss the measurement of growth in information-seeking ability and enthusiasm for information seeking, since these are more important objectives than the accumulation of facts. Close the session by listing the following two career awareness objectives and having the cadre write questions in four formats for each. Let cadre exchange answers and make necessary corrections.

1. Given a description of a skilled trade, the student will identify the occupation.
2. Given the name of a work training program, the student will identify its major characteristics.

Attachment 1

OCCUPATIONS AND WORKERS IN HOLLAND CLUSTERS

Conventional
(20,020,000)

accountant
business machine operator
bookkeeper
cashier
legal stenographer
credit manager
airline ticket clerk
telephone operator
bank teller
secretary
business teacher
keypunch operator
civil service clerk
sales clerk

Artistic
(500,000)

actor/actress
artist
architect
drama coach
editor
entertainer
advertising man
designer
interpreter
interior decorator
journalist
fashion model
writer

Enterprising
(12,740,000)

administrative assistant
airline stewardess
banker
buyer
economist
truck dispatcher
sales engineer
contractor
government official
production manager
supermarket manager
attorney
radio announcer
salesman
real estate salesman
bank executive

Social
(14,005,000)

recreation administrator
athlete
bartender
social worker
cosmetologist
counselor
insurance correspondent
dental hygienist
dietician
librarian
historian
home economist
interviewer
nurse
physical therapist
politician
retail saleswoman
school principal
waiter/waitress

Realistic
(36,400,000)

appliance repair person
baker
shoemaker
bookbinder
bricklayer
carpenter
typesetter
cook
civil engineer
draftsman
fireman
game warden
forester
machinist
sailor
plumber
auto mechanic
custodian
assembler
truck driver
factory supervisor

Investigative
(7,280,000)

airplane pilot
anthropologist
biologist
chemist
physician
dentist
engineer aide
mathematician
research analyst
TV repairman
psychologist
oceanographer
X-ray technician
laboratory technician
tool and dye maker
computer programmer
electronic engineer
mechanical engineer

NOTE: Numbers of employees in parentheses are approximations by Charles Healy based upon extrapolations from the data provided in the Occupational Outlook Handbook for 1974 for principal occupations within field. Workers at all levels, from unskilled to professional, are included.

Attachment 2

OCCUPATIONAL AND EDUCATIONAL EXPLORATION

There are various levels of knowing. Everyone who watches T.V. knows the feeling of a police officer entering a darkened building in pursuit of an armed criminal. The knowledge of the T.V. viewer, however, is very different from the knowledge of the officer who has actually experienced such a pursuit. The officer has felt the chest pain of fear and excitement for the seconds that seemed like hours; the officer has experienced the startling shift from easy routine to life and death alertness, and the officer has filled out reports, testified, and then completed more reports until the memory of the chase and the pleasure of winning was all but gone.

The same can be said of other vicarious occupational or educational experience. Even though we can know something by reading about it, seeing it, or hearing others talk about it, we do not know it in the same way as we would had we done it. There is no substitute for actual experiences. Of course, knowledge from reading, watching or listening to others is useful, for it provides information which helps us to prepare for untried activities and to select untried activities that are likely to be satisfying. When we have experienced something similar to what we read, see, or hear about, the information is even more useful because we have concrete referents for it. But still it is not as meaningful as having done it.

An authority on career information has classified information dissemination methods in terms of their closeness to actual experience. That classification, presented below, can be helpful in planning how to maximize the meaningfulness of your students' learning from career information. The classification is from remote to actual experience:

1. Verbal symbols (lecture)
2. Visual symbols (books)
3. Radio, tape recording
4. Motion picture
5. Television
6. Exhibits
7. Drama, demonstration, role play
8. Contrived experience (simulations)
9. Direct experience

In every major study of career development, the extent of a person's knowledge about occupational and educational opportunities and requirements has been related to career maturity. Obviously, one of the most important things an educator can do for students is to help them acquire information at as close a level of experience to what is to be known as possible and to help them to acquire the habit of seeking such information. Many of the skills and experiences which you want to give your students are or at least could be similar or even the same as skills and experiences that comprise advanced training or work. If you review what you are teaching in terms of how more of your activities might be related directly to work or advanced training, you will find activities which can be adapted or added. Adaptation or addition of new activities obviously is work, but you probably have found that energy spent in making your subject more relevant to students' future education or work pays off very well. Lack of student motivation is the major drawback of teaching, and the evidence is overwhelming in showing that increasing the relevance of one's teaching increases student motivation.

In the workshop we shall examine ways in which classroom activities and homework assignments which are appropriate for your subject might be adapted or added by you to your present routines. Our experience in workshops is that you and your colleagues already have many ideas and would profit by sharing them. Consequently, we hope you will be ready to share what has worked for you already and to learn from colleagues what has worked for them. In addition, we shall describe and show methods of which we are aware that are not mentioned by you or your colleagues.

Occupational exploration through classwork can build the self-awareness needed for securing appropriate jobs. Inasmuch as the most important factor in getting a job is the right skills, the most important way teachers can help students to get jobs is to build their skills. Most teachers are now doing that and doing it reasonably well. But employers, of course, are not looking for people with just any skills. They want people who have the right skills for their kind of work. Consequently, teachers can be of even more help to students in getting a job by pointing out for students the particular skills they are teaching and telling students about the kinds of employers who use those skills.

Most employers say that the person hired is the one who is able to show that he/she has the skills required. Students who know the skills they are developing and can identify the employers who seek those skills are much more likely to get jobs. The skills we mean are everyday abilities such as spelling ability, knowledge of the fundamentals of electricity, or knowledge of the operation of a desk calculator. Some of these skills are taught in almost every class, or at least could be taught. Think for a moment! What are the skills in your class that are useful in jobs? Are these other skills you might also teach in your courses that would help your students get work?

To get a job requiring one or more of these skills does not mean that a student has to be the best in the class in the skill. Generally average capability, or even just being able to do it, is enough. Employers have found that those with the minimum ability can improve on the job and that such people quickly do satisfactory work. Rather than try to get the highest skilled person, employers seek capable workers who have other important qualities such as cooperativeness and reliability. They know that these qualities, which are really general skills, plus basic competence will produce the greatest profits.

You may have heard that the best way to help students to get jobs is to teach them how to interview and how to complete job application forms. That's not really true. Filling out applications and interviewing is important, but unless the employer is looking for an employment interviewer, he/she will be more concerned about the students' other skills. Of course, students must be able to tell the employer what they can do and how they learned to do it. They must also get to the employer who is hiring.

You can help your students in this pretty easily by following the four principles below. You don't have to worry about teaching students to be clever interviewers. Indeed, most employers are so eager for qualified employees that they are very patient in interviewing prospective workers.

Four principles for helping students get jobs.

1. Inform students about the specific skills they are building in your class.

2. Tell students about the jobs in which those skills are important and about the employers in your community which have such jobs.

3. Show students their progress in each skill and let them know when they have achieved minimum competence.

4. At the end of class ask the student to inform you orally or in writing of the skills he/she developed and his/her reason for saying that, and of the local jobs in which he/she could use those skills.

Attachment 3

SCHOOL RESOURCES SURVEY

People

Work/Study Coordinator ____________________

Coordinator of field trips/outside speakers ____________________

Career Adviser/Counselor ____________________

Placement Officer/Counselor ____________________

Adult Education Counselor ____________________

Vocational club sponsors ____________________

Chairperson, Industrial Arts ____________________

Chairperson, Business Education ____________________

Chairperson, Vocational Education ____________________

Chairperson, Home Economics ____________________

Learning Lab, Director ____________________

Purchasing Officer ____________________

State Employment representative ____________________

Teachers, clerks, mechanics who
will demonstrate work skill ____________________

____

____

____

Materials/Services

Career library ____________________

Extracurricular clubs/teams ____________________

Career films/cassettes ____________________

Career games/exploration kits ____________________

Materials/Services (Continued)

Volunteer speakers list ________________________________

Field trip site/welcoming employers list ________________________________

In-school 'job' list ________________________________

Other ________________________________

Equipment

Audiovisuals ________________________________

Cassette recorder ________________________________

Movie projector ________________________________

Video recorder/playback ________________________________

T.V. ________________________________

Tools ________________________________

Lab equipment ________________________________

Office equipment/business-machine ________________________________

Machinery (printing press, etc.) ________________________________

Other ________________________________

List below the questions about school resources which you would like discussed in the workshop.

Module 5

INTEGRATING COMMUNITY RESOURCES INTO CAREER EDUCATION

Purpose

The object of this module is to afford cadre the opportunity of interacting with business and community resource coordinators.

Rationale

The involvement of the community in career education is recognized by most planners as essential. Many work experiences and most work models will not be available to students unless they are provided by sectors of the community outside of the school. Yet there is now little community involvement in the formal school program. In part this is because educators lack familiarity with what their communities expect to do in career education, and in part it is because the community is similarly unfamiliar with school needs and constraints. Consequently, educators and community representatives need to come together to discuss how they can collaborate in career education. This module will demonstrate a method of initiating an educator-community representative dialogue on collaboration in career education.

Preparation

Assemble a panel of five or six representatives from business and from agencies which can provide services in career education to your schools. Before the meeting inform the panelists in a letter that you expect them to present a short description of their company's or agency's involvement in career education and to give their own ideas, not binding upon their company or agency, about other possible career education activities. Such activities include: 3- to 4-day loans of employees to instruct students in schools, lease or loan of materials for school simulations, collaboration by an employee or a volunteer with a classroom teacher in planning and implementing a work simulation, paid or unpaid opportunities for teachers and students to shadow a worker in the performance of his job, paid summer employment for teachers, rotating teachers through different kinds of occupations, and financial underwriting of a person to coordinate school-community collaboration.

In the letter (Attachment 1), define "infusion of career education" for the panelists, noting that the keystone is integrating career education into existing curriculum. Point out that the activities upon which you are asking them to comment are ones which promote infusion. Point out that the community can work cooperatively (that is, assist educators as educators request it), or they can collaborate (that is, share responsibility for planning, execution, and evaluation).

Advise the panelists that you want them to identify for the educators the constraints which affect their company's or agency's collaboration or cooperation in education, and to point out how educators can make these efforts more certain and productive. Emphasize that there will be an open exchange of views about the cooperation and possible collaboration of educators, employers, and community members. Say that you anticipate that all differences will not be resolved, but the openness in dealing with problems will stimulate participants to work more closely together in the future.

On your panel, for diversity, try to include a representative of the State Employment Service and a representative of a volunteer group such as the United Way, Boy or Girl Scouts, YWCA, YMCA, etc. Have the panelists and cadre read Attachment 2 and skim Hoyt, K. B., Community Resources for Career Education. Invite them to refer to either in their presentation.

LEARNER OBJECTIVES

Cadre will:

1. Report a greater willingness to show teachers how to integrate community resources into their classroom teaching.
2. Identify the ways in which the business/industry, labor, government, and volunteer sectors of the community are willing to contribute to career education and the contributions which require further exploration or negotiation.
3. Know the characteristics which employers believe are important for job entry and advancement.
4. Identify the actions which the non-school sector expects school officials to take in integrating non-school contributions into the career education program.
5. Increase by at least two the number of their community contacts for career education programs.

Community resource panel members will:

1. Know the kinds of assistance in career education infusion which educators believe are needed.
2. Know the constraints faced by educators when integrating community resources into classroom teaching.

INTEGRATING COMMUNITY RESOURCES INTO CAREER EDUCATION

Designate your community resource representatives as a panel. Introduce the panelists and tell the cadre that each representative will describe his or her company's or agency's career education services. Ask the cadre to delay their questions until every panelist completes his or her presentation.

Summarize the contents of both "Community Involvement in Career Education" (Attachment 2) and Hoyt's monograph, noting that both are among the cadre's materials. Ask a volunteer to clarify the concept of career education infusion for the panel and invite the panelists to ask any questions they have about the concept as defined by the cadre or in the letter of invitation.

Distribute one-half of the career education survey (Attachment 3)* to panelists and cadre, and ask them to spend 10 minutes completing it. Obj. 2 Note that they will receive a similar set of questions to judge following the module and that panelists' and educators' ratings will be compared before and after the session to determine whether the session brought the groups closer together. Collect the ratings and invite the panelists to begin.

Following the panel presentations, invite participant questions. Moderate the exchange to insure full panel participation. During the course of questions, encourage multiple panel members to answer a question.

Usually, the following issues will be raised, but you should have questions ready to elicit them if they are not raised.

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*Attachment 3 is introduced by a brief description of the Delphi technique.

1. Can the individual teacher or counselor contact your agency or business directly, and what is the best way to make contact?

2. What materials and personnel will your company/agency provide? Insure that the following are mentioned: mock-ups, speeches, tours, demonstration, 3-4 day employee loan, work (paid work experience for teachers, experience site for students).

3. What mechanism is available for the educator to use in giving constructive feedback on the performance of a representative of your company or agency?

4. What coordination or preparation by the school does your agency or business expect?

5. Can you give examples of how your institution is willing to help inservice teachers here in ______ ________ (summer/part-time work, speaker, tour)?

bj. 3

6. What student characteristics make a difference in hiring and promotion in your company? (Elicit answers about: occupational skills, work habits, general communication, interpersonal.)

7. Career education infusion is trying to increase student self-awareness, occupational awareness, and decision-making ability. How will improvements in these areas help employees in your firm? (Probe such areas as: in selecting right job, in satisfaction, in self-improvement?)

8. What activities or job skills in your company could be "infused" with regular high school subjects?

9. What do you think of infusion as a direction and how can your particular company/agency help the schools with infusion?

After the questioning of the panel, and if it has not already been covered, tell the panel that educators typically have certain needs for assistance in career education but frequently do not know the community's receptivity to furnishing such help or the feasibility of such help. Say that you would like each team to discuss the kinds of community help it needs in order to obtain the advice of the panelists about securing it. Follow this by noting that there are constraints which prevent educators from interfacing more with the community. Have each team identify a few, so that panelists and cadre can suggest means of eliminating the constraints or of working within those which defy elimination. Among the possible constraints are: (1) a regulation which mandates that a class must always be supervised by a certificated person; (2) inability to schedule formal classes on weekends or evenings; and (3) inability to compensate teachers for collaboration activities.

As the module draws to a close, have each team convene with one or more panelists for 15 minutes to discuss how they might utilize a community panel to initiate more teacher-community collaboration. Close by having each team share their ideas and then receiving the reaction of panel members and other teams.

Attachment 1

LETTER TO PROSPECTIVE COMMUNITY SUPPORT PANELISTS

Dear (Name of Community Representative):

Please accept this invitation to participate on a community resource panel for the inservice training of educators in career education. The panel will acquaint educators with the kinds of assistance which companies or organizations such as yours can offer them in assisting students to prepare for a career and the world of work.

At the session, you and several other community representatives will be asked to discuss the services your organization can provide to teachers in helping them "infuse" career education. The idea of infusing career education is relatively new for many teachers. It means that regardless of his/her subject, each teacher will devote some of the semester's work toward enabling the student to become aware of: (1) his or her own career interests and abilities, (2) the occupations and leisure pursuits related to the subject, and (3) the aspects of career planning and decision-making illustrated in the course work.

The idea of infusion is promising but requires community involvement. The educators at the meeting will be interested in knowing your organization's policy on such issues as: (1) 3- or 4-day loans of employees to instruct students in a particular skill, (2) lease or loan of equipment, (3) collaboration with a teacher on student projects or special career instruction, (4) opportunities for teachers or students to shadow a worker on the job, and (5) paid summer employment at rotating occupations for teachers. If your company has not yet established a policy regarding a particular matter, your views on its feasibility will be most welcome.

In addition to giving information, you will have the opportunity to ask the educators questions about their expectations in using your organization's services. You will be able to discuss any collaborative problems your organization has confronted.

We believe that the panel can become a basis for a collaborative, not just a cooperative, relationship between your organization and schools. More specifically, our hope is that people like you will become more fully involved in planning, executing, and evaluating the schools' career education effort. Your cooperation is essential, but the meeting should enable all of us to explore whether career education will not be more successful if we enable you to collaborate and not merely cooperate.

The meeting will be held on ____________ at ______________________.
I shall call you on ______________ to answer any questions you have
and learn whether you can participate.

Thank you for considering this request.

Attachment 2

COMMUNITY INVOLVEMENT IN CAREER EDUCATION*

Community resources are locally available people, materials and services that are useful and valuable for educational purposes. Below are examples of resources which have been used in career education. They are provided to stimulate your thoughts about local possibilities. Following that are specific suggestions for locating and working with resources.

Item: Mission High School Career Center, in San Francisco, regularly uses community volunteers to counsel students interested in specific occupational areas. These volunteers, who work on release time from local business, government and organizations, talk with students individually and in groups about such areas as job requirements, working conditions, job opportunities, company policies and benefits and, when possible, offer interested students an opportunity to visit the job site.

Item: The Redwood City Rotary Club publishes a list of its members by occupation and special interest area. This is available to local school personnel for their use in setting up individual or group student interviews with representatives from a variety of career areas to discuss their occupation. The Rotary resources are also used to augment classroom learning in such areas as science, mathematics, English, government, and business practices.

Item: The Bay Area Air Pollution Control District provides an outstanding service to schools. An information officer is available to visit classrooms throughout the Bay Area to discuss a wide range of environmental concerns as well as job opportunities in the environmental field. An excellent slide show has been prepared to accompany this presentation.

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*Excerpts from A Preliminary Draft for California Task Force in Career Education, 1974, by L. L. Kindred; S. R. Weinheimer and Mary Lee Thomson, Co-Editors.

Item: The California Employment Development Department (EDD) has hired counselors to work in their local manpower offices throughout the state during the summer months. Employment includes a comprehensive training program about how schools and business differ, and how to gather pertinent information about entry level job requirements, salaries, opportunities, etc. The counselors spend a significant portion of their summer employment visiting business and industry, gathering job information that can be used in their student counseling activities. The success of this summer program has stimulated the San Diego Union High School District to adopt a similar abbreviated program for all of its counselors. The local EDD personnel assist in the counselor training and arrange visits to local business and industry sites.

Item: An excellent example of a community volunteer effort specifically directed toward vocational information and career guidance information for students was developed in the Sequoia Union High School District. An informative, step-by-step manual for this project, "A Volunteer Program in Vocational Information and Career Guidance for Secondary Schools," was written by Margaret J. Mullen. Copies of this document are available on microfilm through the California State Department of Education, Research Coordinating Unit, Sacramento, California.

Item: Another high school in the Sequoia District organized parent volunteers around a monthly career theme. Each month throughout the school year is devoted to a different career cluster area. Parent volunteers discuss the broad range of jobs and opportunities available in a particular career cluster area with students. In addition, the school volunteer coordinators help classroom teachers locate resource speakers from the neighboring community to enrich their classroom activities.

Item: The Marin County Industry-Education Council, through a joint effort of the schools and the greater Marin County community, has sponsored successful Career Conferences, Teacher Inservice Workshops, prepared a Career Education Matrix (grades K-14) for use by school personnel, encouraged inter-school and district exploratory programs for students, produced a Marin County Community Resource Directory, and have underwritten an Industry-Education Awards program for outstanding student achievement in occupational learning programs. Awards are given to people from the community who provide outstanding service to Industry-Education activities.

Item: A Career Education Specialist was hired jointly by the San Rafael City Schools and the local Marin County Industry-Education Council. This person was able to expand the community and school district base of support to the local Industry-Education Council while providing implementation techniques and community resource information to district staff. Assistance to teachers and counselors was carried out through work with individuals and through staff workshops for which incremental district credit was offered.

Item: Several years ago, Pan American World Airway organized a program for placing off-duty stewardesses in volunteer community program activities. Many stewardesses have shared exciting information with students about the places they have visited; cooking, clothing, cultural artifacts, musical instruments and languages have been discussed and demonstrated. Talents, hobbies, and other skills of these volunteers have been shared in elementary through high school classrooms. They have also provided information on career and occupational opportunities in the airlines industry, and have been of special tutoring assistance to students in a variety of subject areas.

Item: Pacific Southwest Airlines (PSA) and the San Diego Public Schools have established a cooperative course in airline operations, theory, and maintenance. During the first semester, students meet in a PSA classroom and are instructed by airline personnel on aircraft dynamics, theory of aviation, aircraft maintenance, laws regulating the airlines, and the airline's role as a public service agency. In the second semester, they are provided an opportunity to apply the principles and knowledge from the first semester in actual on-the-job experiences.

Community Organizations

Most communities have at least one of the following service organizations actively involved in programs and projects in the area:

American Association of University Women
Chamber of Commerce
Junior League
Kiwanis Club
Lions Club
Rotary Club
YMCA
YWCA

Find out what service organizations in your community have speakers' bureaus. Some organizations may have already developed effective educational programs with the schools. Call and find out what local organizations are involved in and where their community service interests lie. They may already be organized to serve your needs very effectively, and be just waiting for you to contact them.

How to Use Community Resources:
A Step By Step Procedure

Now, let's get specific. You are a teacher, counselor, administrator or district staff person. You have a school career education project, a new unit - some stimulus for career education. You want a speaker, a demonstration, or a site visit. You need to use community resources.

How do you do it? Are there others in your school who have information they might share with you? Is there another program already in existence similar to your own elsewhere in the school or district? How can you find out who would be best to assist you?

Community Resource Use: Step by Step

Before undertaking any new project that involves the community, you should:

1. Find out if there are other efforts in the school that already use resources in the local community.
2. What resources are being tapped?
3. How are these resources being used?
4. How often are the resources being used?

5. How many students are involved in the program?

6. Are there any problems with the present program?

Step 1

Prepare a brief outline as a project description. Make multiple copies to distribute to community representatives after initial contact has been made.

Step 2

The greatest single obstacle to reaching the community seems to be a fear of picking up the telephone to call an unknown community resource. You will find that most contacts are both interested and receptive to your requests. Overcome your initial fear and make a few calls. You will receive a positive response.

A WORD OF CAUTION: Don't solicit project support and cooperation from anyone unless you intend to use such support. In short, USE YOUR RESOURCES. To solicit and encourage participation on the part of an individual or business implies use. A sure way to "turn off" a ready resource for yourself or others is NOT TO USE IT, OR TO MISUSE IT.

Step 3

In addition to your personal and telephone contacts with individuals in the community, write a personal letter. Condition yourself to write to each individual from the community to whom you make a specific request for service.

Don't just emphasize the big, obvious firms. Small firms often have a great deal of interest in the local community.

Step 4

Use a personal on-site interview as frequently as possible and practical.

The visit to the site will provide you an opportunity to see the contact's place of work and to view, on a limited basis, the work environment and kinds of activities carried out there.

Establish rapport with the contact. Remember, the better you can communicate with one another, the more effectively you'll work together over a long period of time.

Be specific about what you expect the community resource to do. Find out what the limitations are and how much time can be devoted to your project. Respect the limits.

Don't go into the personal interview with the attitude that the resource owes you a favor or time. You're one human being requesting another to provide help and support.

Bring along a brief project description. Leave it when you depart. Describe your activities briefly. Ask for feedback and questions.

The interview can be the key to successful school/community projects; give it careful consideration.

Step 5

Keep communication channels open to the community. Stay in touch as the project operates. Correct and revise procedures where necessary.

Step 6

Stay alert to new possibilities.

Don't forget the Ripple Effect. Your own list of community resource prospects will expand if you take every opportunity to seek additional contacts from community representatives.

Step 7

Follow up.

If you establish contact and don't follow up, you may permanently alienate a valuable resource for yourself and others. Find out if there are problems and correct them.

Attachment 3

DELPHI TECHNIQUE

In accordance with the Delphi method, you are asked to react to a set of propositions twice. First, without knowing how others in business/industry or in education react, and then after receiving information about how educators and business/industry people reacted. The rationale of the Delphi is that a best consensus can be obtained by informed persons giving their individual best judgments about a proposition and then re-evaluating their judgments in light of how other judges have reacted. The second set of judgments is thought to approximate truth most closely. The procedure has been validated as an effective means of attaining consensus about factual data and is used in engineering and organizational psychology to improve working relations in groups of people with divergent backgrounds. You may want to use it in your own group work and can read more about the method in Dalkey, N. C., "Toward a Theory Group Estimation," IN Linstone, H., and M. Turoff, The Delphi Method: Technique and Applications, Reading, Mass.: Addison Wesley, 1975. Participation in this study, of course, will show you one way of utilizing the Delphi technique.

Module 6

CAREER DEVELOPMENT AS THE INTEGRATING CONCEPT OF CAREER EDUCATION

Purpose

The purpose of this module is to clarify the meaning and origin of the career development concept and to show how it holds career education together and establishes career education as an important element in every teacher's objectives.

Rationale

Cadre should be able to show educators and community members that career development has a foundation in logic and empirical facts, but is a concept which needs clarification, and is a concept linked closely to changing social/economic demands. Relating the concept of development to careers proclaims that each career is a sequence of stages, such that success at any one stage is dependent upon success at previous stages. Since a career, by definition, includes a person's schooling, it follows that there ought to be ongoing attention to the aspects of schooling related to career in order to insure maximum career development. A lecture-discussion with tables and exercises to clarify key points of career development theory, plus recommended reading, should equip the cadre both to explain the concept to teachers, administrators and community, and to argue the merits of the concept as the rationale of career education.

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LEARNER OBJECTIVES

Cadre will:

1. Define the concepts of: career, career development, career maturity, career education, career education infusion, life stage, job, occupation, vocational education, and work experience.

2. Show that the concept of career development can be the rationale of career education, by providing at least two premises relating to development and schooling upon which one could argue this.

3. State at least one empirical, one logical, and one theoretical support for the validity of the career development concept.

4. Summarize Super's self-concept theory of career development correctly in terms of the concepts of: self-concept, stages of development, objectives of career choice, career maturity, need of occupational knowledge, and control of one's career.

5. Given the definition of career development, deduce two distinct arguments for ongoing career education throughout schooling. The arguments should be logical and based on facts about careers and the purpose of schooling.

6. Given the definition of career development, deduce three arguments for infusion of career education into classroom instruction. The arguments should be logical and based on facts about careers or schooling or recognized theory.

7. Given a description of a high school student's career development, be able to identify it as mature or immature, based on established indices of career maturity.

8. Feel that career development is a useful, scientifically defensible concept.

9. Given a set of career education objectives, identify a chart which enables teachers of all high school subjects to contribute to the achievement of the objectives.

CAREER DEVELOPMENT AS THE INTEGRATING CONCEPT OF CAREER EDUCATION

To illustrate career emphasis in education, form a line, such that the extreme right represents 90% emphasis and the extreme left 0%. Use 10% markers on the line. Ask the cadre to take a position on the career education line in terms of the average percentage of time each high school course should give to career education. When in place, have cadre pair off and share with the other person their reasons for their belief. Then the cadre should interact for five minutes with a person on the extreme right or one on the extreme left about their reasons for their respective beliefs.

Bring the group together and invite volunteers to share what transpired. Note that they presented and heard different reasons for career education based on empirical evidence and the logical requirements of our school and work system. Point out that the ability to explain and justify career education will be very important to cadre and that this module's intent is to review explanations and arguments which they can use.

Present the following propositions and elaborate on them. Encourage questions and attempt to reinforce, if only partially, all contributions from cadre to the presentation. Solicit examples from the experience of the cadre.

1. Career development is a logical consequence of both our social/
bj. 3 economic structure, in which at least entry to some jobs requires skills

developed through extended training or employment in another occupation, and our ability to do only a few things at once.

a. Note that entry jobs require various prerequisite accomplishments such as completion of high school, college, or an apprenticeship, or experience in a particular occupation (accountant before comptroller, lawyer before judge).

b. Note that abilities and interests progress through stages created in part by the social structure. For example, one learns to speak English and then how to read it. Next one studies physics, proceeds to engineering, and finally performs as an engineer. Likewise, one may start with an interest in examining different plants. This leads to reading about them, studying botany, liking field trips and classifying different plants, and finally enjoying working as a botanist.

c. Point out that interests and abilities can develop in multiple ways, but as a person pursues one direction, other directions remain undeveloped. Consequently, as one qualifies for one kind of work, he often forecloses the possibility of some other jobs. Too much effort in social science precludes a physics career without immense retreading. Likewise, many years of cultivating physics interests and skills contributes minimally to a career in accounting or insurance.

2. Empirical evidence indicates that successful careers are more often than not comprised of a progression of successes, which in part depend upon previous accomplishments.

a. Start by noting that early successes in career-related matters predict later successes, while early deficits portend failure. In the Career Pattern Study, Super studied 250 boys in a typical small American city from age 14 to 35. Starting in 1951 when the boys were in 8th and 9th grade, their personality, interests, abilities, plans, and socio-economic backgrounds were examined intensively. They were then re-examined in 12th grade and at ages 20, 25, and 35. After high school graduation, data were gathered about their employment and further education, their productivity and satisfaction, and their future goals and planning. Findings from this study show a clear relation of adolescent knowledge of occupations, awareness of self, and planning capability to adult career success. In a second longitudinal study, the Career Development Study, undertaken several years later by Gribbons and Lohnes, similar data were gathered on 111 boys and girls from the Boston area. These youngsters were studied in 8th, 10th, and 12th grades and at age 20. Again, the data indicated that knowledge and skills manifest in early adolescence were associated with mature career behavior in 12th grade and at age 20.

b. Point out that, in our society, the more school completed, the higher are one's earnings and career satisfaction, even though the only two currently living American billionaires did not complete high school.

c. Note that people in an occupation regard themselves as more like the stereotype of their occupation than the stereotypes of other occupations, and that they are more like colleagues in their own occupation than members of other occupations in terms of values, interests, and skills.

d. Note that it has long been accepted that people should seek out and enter occupations which involve interests and abilities similar to their own.

3. Donald Super's self-concept theory of career development accommodates many data and beliefs about the career of a modern American. Understand it, because it will help you to explain why you are promoting career education.

Invite the cadre to read Attachment 1 carefully and to note their questions about it. Answer these.

Say that Super's theory of career development offers the rationale Obj. 2 for career education. It affirms that: (a) a career consists of a series of stages with tasks to be mastered at each, (b) mastery at any stage influences subsequent stages, and (c) a career includes schooling. As such, the theory supports providing ongoing assistance in those aspects of schooling which are career-related. Tell the cadre that they will be asked to explain and perhaps even argue for the need of career development in school. Consequently, they will be called upon to explain a theory such as Super's, or even defend it. To prepare for that, ask them to take a few moments and write a summary of Super's theory in Obj. 4 terms of his views on: self-concept, stages of development, objectives of career choices, career maturity, needs for occupational knowledge, and control of one's career. Invite the cadre to ask for clarification of any concepts of which they are unsure and ask them to state the essentials of the theory for each element.

To assist cadre to deal with the skepticism about career development, take five minutes and brainstorm possible criticisms of Super's theory. Then involve cadre in formulating refutations to those objections. Here are some objections accompanied by a suggested refutation:

a. "Careers just happen, they are not planned. My case is an example." Often it appears that way on the surface. Upon close examination, you frequently find that a person succeeds at one stage because he has prepared the way at other stages. Planning should not be considered making and then following one plan forevermore. Rather, it is a process of continually gathering, weighing, and adjusting short-term objectives to achieve long-term goals defined in broad terms, such as: contribute to human knowledge by validating understanding of career development, improve an education system through installation of effective management procedures, or obtain favorable community recognition through earning a wage in the upper tenth percentile of wage earners. Look carefully at your case. Are there antecedents which allowed the career to unfold as it did?

b. "Many successful people would not recognize their own self-concept if presented with it. How can it be directing them?"

It is unfortunately true that we don't know ourselves very well. Frequently, a little knowledge is enough to pick the right direction, because all of us are usually able to succeed at several things and because our economic system has evolved in such a way that almost every choice will offer some success. Super's position is that success is more likely the greater the self and career knowledge and the more systematic the plans.

c. "I thought that personalities were formed early, even before age 6, and that the nature of that personality determines career." Some theorists hold such a position, but there is minimal direct evidence to support it, and much to refute it. Knowledge of temperament and personal characteristics should be part of the self-concept and as such can be considered in career planning.

d. "Over the years, economic conditions have determined career. There are no Eskimo astronauts and no vocational education programs in grizzly bear hunting." The economy indeed directs attention to some opportunities and almost precludes attending to others, but as long as there are different occupations, by definition different skills and interests are required, and this enables differential development.

4. It will be easier for you to support career development as the rationale of career education if you recognize the degree to which your own career is developmental. Take a few moments to recollect some of the key junctures in your own career. As a high school student, what

abilities, interests, and values did you feel you had? List the main ones. Next, write down the training and work which you were considering. What information had you acquired about these and how much deliberation was involved in your choice? Would you have been rated as career-mature by Super? Move on to your college years and indicate your work and training goals then. What abilities, interests, and values were most prominent? Note the amount of planning and decision-making you were doing. Had your career maturity changed? Were you consciously trying to implement a self-concept through a career? Proceed to your first full-time work upon completing school. To what degree did you select it based on interests, abilities and values? How planful were you in securing it? Would Super call your actions career mature? Finally, consider the present. List your main abilities, interests and values and say how your present work and your future job prospects mesh with those or with abilities and values you wish to develop. To what degree are you planning? Following the review of cadre careers, invite them to share their concerns about fitting or not fitting the model. Ask them to speculate about improvements that might have accrued had they followed the model. Do they believe it would now be easier to follow the model, since a greater part of schooling would have clearly related to their career as career education is now relating to the careers of students?

5. The concept of career development and the existence of a complex world of work, and our belief that everyone should choose an occupation for himself, necessitates a program of career education and supports the strategy of infusing career education.

Use the following supportive argument. By definition, career education refers to programs which contribute to career development. The programs may build self and career awareness; develop career and working skills such as decision-making, perseverance, and particular occupational skills; and aid a person in locating a job and adjusting to work. To choose among options, a person needs opportunities to become aware of himself and the available career options, and he needs training and feedback on his skills. To avail himself of options, he will require assistance in moving from school to work or from job to job, and he may even need feedback and coaching in adapting to different work demands. The world of work is getting more complex, but less accessible to the outsider. At the same time the knowledge and skills needed to navigate the career possibilities increase proportionately. Formal attention to career education is needed, therefore, if the school is to fulfill its goal of preparing youth for work.

The notion of development affirms that the career unfolds, improving if properly nurtured and guided. Consequently, it follows that the person should be assisted to expand his/her self-awareness of skills, interests, and values through appropriate experiences; he/she should be aided in discovering available work, training, and recreational opportunities and how such opportunities relate to his/her talents, interests, and values; and he/she should be assisted in acquiring the habit and skills of planning and decision-making. As soon as possible, the person should assume increasing responsibility for the development and the direction of his/her career.

Since schools are designed in part to acquaint youngsters with our civilization, especially its tools and knowledge, and since these tools and knowledge are the core of work, training, and recreational opportunities, it follows that self-awareness in relation to these tools and knowledge, and opportunities for their use, should be facilitated in school. Furthermore, since students spend a large percentage of their time in school-related activities, they can most effectively acquire the skills and habits of decision-making through school instruction.

Particular school programs are already in place for doing some career development, but review of them will show that they address only some career development needs. Vocational/technical programs meet only a person's needs for particular occupational skills. Work experience education or work study also addresses only a small part of career development; namely, it offers the opportunity to exercise work habits and to learn firsthand about a limited number of jobs. The career guidance class is similarly limited in that it aims primarily to organize information and formulate plans. Before people are ready for these programs, they need experiences and feedback to be able to choose among these. Consequently, they need help earlier and on a regular basis, ranging over the broad spectrum of opportunities.

There is not full agreement about which strategies are best for accomplishing career education. Many, however, believe that a promising strategy is infusion. Infusion means integrating career education right into existing classroom teaching. As a person learns history, he/she can learn how decisions are made and how this applies to his/her own career; likewise, he/she can learn how the activities of historical record keeping and research are similar to duties of particular occupations, so that as he/she does these activities and learns about his/her skills and interest in them, he/she will be able to make judgments about the suitability of particular occupations. Invite cadre to give other examples of infusion and correct misdefined practices where necessary.

6. Career education has the backing of many groups, but many individuals oppose it. You need to know their arguments and be able to rebut them.

Start on the following note. Traditionally, teachers have influenced the careers of their students. Today, survey after survey shows that parents and students expect youngsters to be helped in their career growth and choices by the school, that both groups feel there has been a lack of such help, which in their view is a major shortcoming of education.

The career education concept has been endorsed by multiple community groups including the U.S. Chamber of Commerce, National Alliance of Businesses, American Federation of Labor and Congress of Industry Organization, United Way, Boy and Girl Scouts of America, American Vocational Association, American Personnel and Guidance Association, National Education Association, National School Administrators Association, etc.

Nevertheless, there are several arguments against career education itself and several others against one of its possible strategies, infusion. List the former and then elicit additional ones. Guide the cadre to suggest rebuttals to each argument. Point out the strengths and weaknesses of these rebuttals in terms of their logic and consistency with empirical evidence. Attachment 2, "Defense of Career Education," contains a list of arguments and suggested rebuttals. Insure that these rebuttals are mentioned when the particular arguments are discussed.

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7. Career development research is establishing performance goals for each age group. Although these goals are still incomplete, several goals for adolescents have been identified. We hope that you will show teachers how to integrate them into their other instructional goals. (They appear in Attachment 3.)

Reiterate that career development is the cumulative accomplishments at each life stage which contribute to career success. We can discover the elements or ingredients of career development by analyzing our socio-economic structure and noting the sequences of achievements necessary for career progress, and we can study people to determine what they have done to progress in their careers. In studying people, we can either contrast persons whom we define as successful with those whom we consider not successful; or we can study persons as their career unfolds over the years; or, we can combine the two approaches. Super's Career Pattern Study is the classic example of the combined approach. From his and other studies we have learned some of the elements which comprise career maturity.

Have the cadre examine Attachment 3 and note the different achievements which reflect career development. Point out that educators have taken these tasks and assigned responsibility for their teaching to particular grades; that is, they have set performance goals for different grades as indicated in Attachment 4.

Ask cadre to indicate how these objectives can be achieved through infusion. (A coordinator can allocate responsibility for objectives by writing subobjectives for each and assigning them to particular courses.) Point out that the objectives are broad so that they are comprised of a range of accomplishments. Illustrate this for the objective that a student will know his/her strengths and weaknesses, such that he/she can predict teacher/supervisor ratings of him/her. Have the cadre write subobjectives for this objective, and then assign the subobjectives to particular courses.

8. Infusion of career education requires coordination of the various, ongoing career education activities. The school should provide someone to coordinate program efforts and the individual should be shown how to monitor his/her own career development program.

Your teachers will have to fit new lessons into existing curriculum. They can either: (1) adapt some of the lessons appended to the self-awareness, career awareness, and planning modules; (2) construct lessons like those appended to integrate into their regular sequence of lessons; (3) revise some or all of their current lessons so that self-awareness, career awareness, and planning and decision-making are taught within them; (4) do a combination of these; or (5) adopt a comprehensive career education program such as the Careers in Focus program of McGraw-Hill or the Career Exploration Series of the Center for Vocational Technical Education of the Ohio State University. Regardless of the option or options they select, you should help them in planning the scope and sequence of the integration of career education into their teaching and in implementing and correcting their delivery of their new program. Adapt our inservice planning module to do the former, and of course, follow the coaching technique for the latter.

For teachers electing one of the first four options, you will also need a way of insuring that their career education is sequential and that their students are receiving a comprehensive program to the degree that comprehensiveness is feasible. In other words, after your teachers decide what they will do, they will need a chart to identify the aspects of career development which they are promoting, and you or an appointed coordinator will need to monitor the career education activities to avoid duplication and insure that students are receiving a balanced program across subjects and across grades.

The sample chart in Attachment 5 is one device for coordinating
bj. 9 career education in your school. The chart is headed so that every subject in your school is listed in the subject column with enough space for each course and every broad career development goal has its separate column. In the box for a particular goal and class, you can list the career education activities which are planned and the number of class periods which are allocated to the activity. Our chart here shows entries for English and foreign language. The more specific the entries, the easier it is to insure that there is no duplication. Of course, three hours of testing and interpretation in English II probably won't duplicate similar testing in English I, and an advertising agency simulation in English III or Business I might not duplicate such a simulation in English II, but knowing about the English II simulation

will alert others. If the student record system permits, it would be most useful for the student to record in his record the activities he has completed so that he can consider this information in selecting among future courses.

Our chart in Attachment 5, you will note. is designed to assist a school official in keeping track of career education activities. Teachers need not be aware of the career development tasks appropriate to any age group or the occupational clusters to which a particular experience refers in order to make entries or to know what has occurred. This chart is primarily a management tool to allow teachers to report and plan their part in a student's career development with minimal effort.

9. Much research still needs to be done on establishing the content for career education. Your experiences of what should be taught, when verified by agreement of other educators, can fill in some of the gaps temporarily until such research is forthcoming.

Every study has limitations of data and perspective, and consequently the career development studies are likely to have overlooked elements in career maturity which were not as evident when the study occurred. Today our knowledge of careers suggests that cooperativeness, balance among life's roles, and sense of social responsibility may be as important as other skills originally studied. Consequently, consider the accomplishments in Attachment 3 as only a partial list. Tell the cadre that their own careful analysis of career development should unearth other signs of career maturity. Invite them to **pair off and take 10 minutes** to generate additional accomplishments which they agree show career Obj. 7

maturity in adolescence. Afterwards each pair can share its list so that the group can discuss its validity. In this discussion, ask cadre to state their reasons for asserting that a particular accomplishment reflects career maturity.

Close the session by contrasting the signs of career maturity that have been supported by research with indices which at least some cadre believe reflect maturity. Point out that more research is needed to extend our knowledge of career development, but suggest that cadre can, nevertheless, encourage educators to promote the accomplishments which have not been empirically validated as promoting career development because they appear reasonable and research does not refute them as signs.

Attachment 1

SUMMARY OF SUPER'S SELF-CONCEPT THEORY OF CAREER DEVELOPMENT

Life may be viewed as a sequence of stages, each with its distinctive tasks, some of which relate directly to career. For example, high schoolers have tasks such as deciding about the kind and amount of work training to seek and the skills to emphasize in training. Accomplishment of tasks at one stage is necessary before one can accomplish tasks at subsequent stages. Figure 1 shows the life stages and some career development tasks for each stage.

The career can be viewed as the sequence of work-related positions held by the individual over his/her life. Positions can include school training, home making, jobs, and retirement. At each life stage and position, certain tasks defined by the person's society must be accomplished for the person to progress in his or her career.

People are unique among species in being able to guide their own life's program, at least in part. They form a picture or concept of themselves based on their experiences. This self-concept increasingly influences their life's direction by channeling their attention and efforts. In a healthy situation this concept directs the person to choices which implement and actualize the self as known to the person.

The child learns about himself/herself through schooling, role play, and comparing himself/herself to live and television figures. The image starts to influence his/her family demeanor, play, school work, and other relations and activities. Feedback and new experiences then lead

Figure 1.--Super's Career Development Stages
and Selected General Tasks

Stage	Age	Task
Growth	0-14	- Try multiple experiences - Form self-concept - Develop an understanding of the meaning and purpose of work
Exploration	14-24	- Recognize and accept need to make career decisions and obtain relevant information - Become aware of interests and abilities and how they relate to work opportunities - Identify possible fields and levels of work consistent with these abilities and interests - Secure training to develop skills and advance occupational entry and/or enter occupations fulfilling interests and abilities
Establishment	25-45	- Achieve full competence in occupation through experience/training - Consolidate and improve status in the occupation - Advance vertically or horizontally
Maintenance	46-65	- Preserve skills through inservice/continual training - Develop retirement resources/plans
Decline	65+	- Adapt work to physical capacity - Manage resources to sustain independence

him/her to further define and channel his/her activity.

As the child moves into adolescence and society puts greater prominence on his/her preparation for work, the youngster starts to identify aspects of himself/herself as having particular career relevance. These aspects usually include the abilities, interests, and values he/she sees others like him/her using at work or in work-training. The process of increasing self-differentiation and self-integration suggested by Piaget proceeds as the adolescent moves to early adulthood and encounters tasks such as working productively, advancing in an occupation, deciding among occupational options. The process continues throughout life, providing an expanded but increasingly stable self-picture.

As in other facets of life, in career development the person proceeds, or should proceed, in a manner that leads to actualization of the self-concept. At each life stage, the person tries to accomplish the career tasks which are relevant to a person like him/her. As a consequence of his/her accomplishments, the self-concept expands in some directions but not others, and the expanded self assumes increasing control of his/her career development efforts. Such efforts, of course, create the person or define who he/she is in relation to his/her multipotentiality. As the person develops, his/her progress can be compared to others at his/her stage and to the achievements expected at his/her stage. Such a comparison yields a measure of the person's career maturity.

To create a successful person, one should know about the careers available within society. The more accurate one's self-awareness in relation to those career options, the more likely is one to make choices which will be self-actualizing.

Many aspects of the career are predictable. The tasks of particular training programs and occupations (a set of jobs with similar duties and requirements) for instance, are somewhat stable. By appropriate planning and problem solving, the person can take charge of the career; that is, he/she can use it to create the self he/she likes, rather than become the passive creation of an unplanned career. Problem solving is continually necessary because unanticipated events, such as illness, economic recession, and new opportunities are definitely going to occur. Effective problem solving, however, reduces the potential disruption of such events, and when they are propitious, problem solving enables the person to redirect his/her career to maximize the advantages afforded by a chance event.

Since people are multipotential, and since a society is designed to accommodate such multipotentiality, as well as derive productivity from most people, it is likely that many people will experience at least some satisfaction and be somewhat productive in their career. However, those who direct a career through planning and problem solving are more likely to be satisfied and achieve greater productivity.

Attachment 2

DEFENSE OF CAREER EDUCATION

Argument	Rebuttal
Career education detracts from the development of basic skills and proficiency in subject matter.	Career education requires restructuring instruction to achieve career development goals, but restructuring can enliven instruction and enhance achievement of traditional goals. Evidence, indeed, supports this.
Career education should be done by counselors, since they are trained in this area, not by teachers who are trained in other subjects.	Counselors comprise less than 5% of school staffs and already have many non-career education commitments. Since a modern career is closely linked to subjects taught in school and since it requires ongoing sustenance, only teachers are equipped and sufficiently numerous to offer career education.
Career education will induce students to opt for occupations which are below their potential.	Career education will produce accurate, firsthand awareness of self and opportunities and equip persons to be self-reliant deciders. This should stimulate persons to greater rather than lesser challenges.
Career education will provide youngsters with information and skills needed for today's jobs but not tomorrow's careers.	Career education will develop awareness of current work in a manner which will habituate information seeking and planning and a sense of self-reliance as well as providing immediately marketable skills.
Career education is another device to create administrators without providing relief to the classroom teacher.	It is true that career education requires a coordinator, but that person will offer services to the classroom teacher which will reduce preparation time and lesson time and will increase the motivation potential of classroom instruction.

Argument	Rebuttal
Career education requires coordination beyond the capacity of our current school systems and consequently will lead only to frustration.	The coordination required is ongoing and requires some record keeping. However, that record keeping can be minimal, and while educators have difficulty coordinating, the clear delineation of objectives should make coordination possible.
Infusion will obstruct teachers from achieving regular goals and will not work because teachers lack ability and desire to infuse.	Infusion can improve motivation and build skills and use resources that will reinforce regular subject goals. With proper training and support teachers can infuse successfully.
Students are unable to keep up with curriculum demands now. Infusion waters down teaching more and will not and should not be supported by parents or teachers.	Infusion can be an integrating force stimulating extra class activity and bringing external resources to the classroom instruction program. It will rejuvenate rather than detract.
Infusion turns every class into a vocational class and certainly schooling is much more than preparation for work.	Infusion asks teachers to insure that their courses in part help youngsters relate their efforts to careers. The desirability of other goals is recognized and in no way slighted.
When schooling tries to accomplish more than training in the basic subjects, it overextends and performs poorly in all areas. Infusion is another good cause which can downgrade education.	Infusion can vitalize instruction when done appropriately. It concerns itself with classroom strategies and teaching resources and implies minimal content to achieve its goals.

Attachment 3

CAREER DEVELOPMENT TASKS OF ADOLESCENTS

The tasks are defined for the areas of knowledge, information seeking, planning, and attitudes.

Knowledge

1. Knows the high school programs which are available.
2. Knows the salaries in occupation of interest.
3. Knows the supply/demand situation for occupations of interest.
4. Knows the costs in time and money of training programs for occupations of interest.
5. Knows how far in school people with similar test scores and grades usually go.
6. Knows the job satisfactions of workers in occupations of interest.
7. Knows about the available college, junior college, and technical school program.
8. Knows how people advance in occupations of interest.
9. Knows the principal duties of the occupations of interest to him/her.
10. Knows the education and experience requirements of occupations of interest.
11. Knows which occupations use the abilities which he or she has.
12. Knows the occupations which satisfy his or her values.
13. Knows the subjects that are required for his or her high school program.
14. Knows the personal characteristics which are important in career planning.
15. Knows the progress he or she is making in his or her career development.
16. Has an accurate understanding of own interests and abilities.
17. Knows how to obtain a job in the occupations of interest.
18. Knows how to locate local job openings.

Information Seeking

1. Reads books and pamphlets to find out about occupations.
2. Reads catalogues from colleges, business schools or other vocational schools to learn about them.
3. Discusses career choices with either parents, teachers, or counselors.
4. Discusses financing post-high-school training with either parents, teachers, or counselors.
5. Talks to people in those post-high-school training or work programs of interest about their experiences.
6. Takes particular course or work study or volunteer/paid jobs in order to find out own ability and interest.

Attitudes

1. Believes he/she must make his/her own decisions, but can get advice.
2. Believes in systematic approach to planning and problem solving.
3. Accepts responsibility for obtaining information about career.
4. Believes in trying out various activities to learn abilities and interests.
5. Believes in discussing plans with adults but retaining responsibility for making them.
6. Believes that solving school and work problems is his or her responsibility, although he or she may seek advice.

Planning and Decision-Making

(Sound reasoning assumed for all)

1. Has considered several different occupational alternatives and chosen one.
2. Has decided how many more years of schooling to complete.
3. Has decided what to do after high school graduation.
4. Has chosen courses that will clarify his or her interests and abilities.
5. Has decided whether to work in the community or to work outside of it.
6. Has considered the advantages of different life styles and has chosen one.

Attachment 4

PERFORMANCE GOALS

Goal: Developing Capabilities for Achieving Self-Realization Through Self-understanding and Decision-making.

Subgoals	Learner Objectives by Levels			
	K-3	4-6	7-9	10-12
1. Acquire skills of self-appraisal.	1. Each learner will be able to list or describe three personal attributes.			
	2. Each learner will be able to tell the subject matter areas in which his/her performance is above average.	1. Each learner will be able to describe his/her performance in each subject matter area.	1. Each learner will be able to identify different types of physical work demanded by a variety of jobs, and assess his/her present level of skill development.	1. Each learner will be able to show that he/she knows the vocabulary for use in various situations and can assess his/her performance in communication skills related to specific job requirements.
	3. Each learner will be able to give an example of personality variables about himself/herself.	2. Each learner will be able to list or describe three personality variables about himself/herself.	2. Each learner will be able to complete his/her individual profile, and will be able to tell his/her major interests, aptitudes, and values.	2. Each learner will be able to complete a career preparation plan which is realistic in terms of a) his/her qualifications and b) existing opportunities.
	4. Each learner will be able to list or describe one unique personal characteristic.			

Goal: Developing Capabilities for Achieving Self-realization Through Self-understanding and Decision-making.

Subgoals	Learner Objectives by Levels			
	K-3	4-6	7-9	10-12
2. Develop awareness and understanding of self.	1. Each learner will be able to list or describe likes, dislikes, strengths, and weaknesses.	1. Each learner will be able to list or describe one personal strength and one personal weakness. 2. Each learner will be able to describe a method of strengthening a personal weakness. 3. Each learner will be able to list or describe two reasons for knowing one's strengths and weaknesses.	1. Each learner will know ways of improving his/her behaviors and attitudes. 2. Each learner will gain knowledge of his/her likes and dislikes and strengths and weaknesses.	1. Each learner will be able to demonstrate that he/she understands the relationship of personal factors to careers. 2. Each learner will be able to describe the meaning of maximizing one's potential.
3. Develop understanding of decision-making process.	1. Each learner will be able to give an example of making a decision.	1. Each learner will be able to list or describe the steps involved in making a decision.	1. Each learner will be able to understand that people have to make decisions, and that decision-making is important to successful and satisfying living. 2. Each learner will be able to name factors that influence a career choice.	1. Each learner will be able to accept responsibility for his/her decisions. 2. Each learner will be able to list and rank order criteria for his/her career.

Goal: Developing Capabilities for Achieving Self-realization Through Self-understanding and Decision-making.

Subgoals	Learner Objectives by Levels			
	K-3	4-6	7-9	10-12
4. Acquire skills of decision-making, risk-taking, value clarification, and goal-setting.		1. Each learner will be able to list or describe sequence of career development.	1. Each learner will be able to demonstrate knowledge of basic activities involved in educational and career planning.	1. Each learner will be able to assume responsibility for making a career choice.
		2. Each learner will be able to list two occupations in which he/she is interested.	2. Each learner will be able to tell the value and consequences of several career choices open to him/her.	2. Each learner will be able to show what is required for placement in post-secondary employment, further education, or both.
		3. Each learner will be able to list two occupations in which he/she has no interest.		
5. Develop understanding of the relationship between work and life style.	1. Each learner will be able to give an example of the way work relates to the way one lives.	1. Each learner will be able to list or describe ways in which working relates to the way one lives.	1. Each learner will be able to show that he/she understands that an individual's occupation can influence one's life style and that a preferred life style may influence one's occupational choice.	1. Each learner will be able to name the possible needs of a given life style and list several occupations which will satisfy these needs.
	2. Each learner will be able to give an example of the way in which his/her attitudes relate to school performance.	2. Each learner will be able to list or describe ways in which his/her attitudes relate to school performance.	2. Each learner will be able to identify different personal characteristics which affect performance in a job or hobby.	2. Each learner will be able to derive satisfaction from work/educational experiences.
	3. Each learner will be able to tell how his/her study habits relate to school success.	3. Each learner will be able to list or describe ways in which his/her study habits relate to school success.	3. Each learner will be able to describe the way in which volunteer services affect life style.	3. Each learner will be to list or describe th way changes in life style are caused by occupational advancement.

Attachment 5

SAMPLE COORDINATING CHART OF CAREER EDUCATION ACTIVITIES FOR ENGLISH AND FOREIGN LANGUAGE COURSES

		Self-Awareness	Career Awareness	Planning/Decision-Making
glish	1.	Basic English skills - 3* Test/interpretation weekly exposition skill chart-autobiography - 2	Newspaper simulation - 10 Interview with newspaper personnel - 3	Case study of Tom Sawyer as decision-maker - 5
	2.	Basic English skills Test/interpretation 3 Biweekly oral communication skill chart	Biographies of one skilled and one professional acquaintance 6 Advertising agency simulation 5 Interview advertising personnel and marketing personnel 5	Alternatives available to characters in Macbeth/generating others 5
	3.			
	4.			
oreign nguage	1.	Weekly listening skill chart - 10	Tourist Bureau simulation - identify occupations represented in publicizing the country being studied; identify key facts about it - 5	Study/assignment scheduling 3
	2.	Weekly translation skill chart	Translator simulation - identify areas in which translation done	
	3.		Art/culture fair - critique aspects of country's art/culture	Case study of decision/planning of literature characters Construct educational plan for entering the occupations of foreign language teacher, foreign service officer, translator, noting amount and kind of language required

*Number of class periods

Module 7

EVALUATING YOUR INSERVICE

Purpose

The purpose of this module is to introduce you to the goals and activities associated with evaluation of inservice training programs for career education. The module is designed to clarify evaluation concepts and techniques by providing you with readings, practice exercises, and discussions. You will perform selected evaluation activities and plan evaluation activities for your own inservice training program.

Rationale

In recent years the idea of program evaluation has emerged as a fundamental concern in public school education and has become intertwined with the general public's increasing demand for accountability. Now that the surmounting costs of education have been juxtaposed with the declining performance indices of so many students, few of the new or developing programs can hope to gain institutional acceptance unless the proof of their usefulness can be demonstrated with reliable data.

Moreover, with the continually evolving practice of defining curriculum and instruction according to the competencies students should have as a result of instruction, education's publics will have relatively well-defined preference standards with which to compare the outcomes of instructional programs. Programs cannot expect to merit continued funding and support from these publics unless their developers can describe program outcomes, relate the outcomes to the educational process, and explain the implications of each for further program development.

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LEARNER OBJECTIVES

1. The cadre will draw a graph which illustrates the relationship of evaluation to the development, implementation, and revision of inservice training programs.

2. The cadre will list and briefly describe the tasks involved in evaluating inservice training.

3. The cadre will identify program developers as the primary audience (decision-makers) in the evaluation of inservice training.

4. Given one objective of a career education inservice training program, the cadre will describe the measures required for formative evaluation of this objective.

5. Given a plan for achieving an objective, the cadre will develop a performance checklist to monitor their own behavior in delivering the material.

6. The cadre will write test items to indicate mastery of three objectives.

7. Given an inservice training objective and several possible outcome measures, the cadre will identify the strengths and weaknesses of each type of measure.

8. Given an inservice education training strategy and a negative outcome, the cadre will identify the steps they will take to correct the outcome.

EVALUATING YOUR INSERVICE

Introduction

What Is Evaluation?

Evaluation is a set of procedures which is employed to obtain information for making decisions. The evaluation sponsors and the nature of the decisions to be made determine the types of information which are collected.

There are two contexts in which evaluations are conducted. In one context an evaluation is conducted to improve a program and the evaluation's audience are typically the program's developers. In the second context, an evaluation is conducted to assess a program's merit and the evaluation audience is typically the program's sponsors or potential adopters.

The context for an evaluation is determined by the information needs of the individuals who will use the evaluation information. An evaluation is performed in an improvement context when the evaluation's objective is to determine where changes would make the program better. Typically the program developers require this kind of information so that they can improve the program. Because this type of evaluation is conducted while the program is still being developed and can be modified, it is called formative evaluation (Scriven, 1967). Cadre inservice of career education infusion needs this kind of evaluation.

There are two types of information that are frequently needed in an improvement context to answer questions of importance to the evaluation audience. One type of information is concerned with the extent to which the program has been implemented according to plan. A second type of evaluation information frequently associated with an improvement context is concerned with the extent to which a program is actually making progress towards accomplishing its objectives. Progress information is used to ascertain whether the desired outcomes of a program as a total unit are being achieved and whether the individual components of the program are functioning properly and producing the desired effects. Cadre inservice has these evaluative concerns.

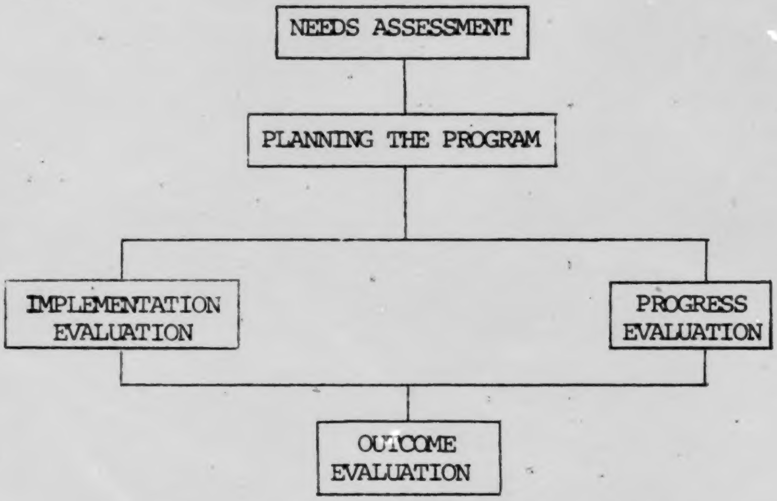
An evaluation is conducted in a certification context when the audience is concerned with determining the extent to which the program is achieving its objectives. The purpose of an evaluation conducted in a certification context is to appraise a program's overall impact and worth and, if it is deserving, to certify it as being able to produce certain outcomes. This type of evaluation is frequently designed for programs that are completely developed and stable and has been called summative evaluation (Scriven, 1967). The information required for a summative evaluation may also be used as process information in an improvement evaluation but it is used in a different manner. Evaluation conducted in a certification context is used to answer questions about the extent to which a program's goals were met, to determine the impact of the program on a special group, to compare the results of the program in relation to its costs and unanticipated outcomes, and to compare the program to other programs designed to achieve the same objective.

In this module the primary focus will be on formative evaluation. Procedures will be presented which will assist the developers of an inservice training program plan and facilitate the collection of information which will help them modify and improve their program.

When Is an Evaluation Begun?

Evaluation is an integral part of program development. It begins as soon as the decision to develop a program is made. Figure 1 illustrates the framework of program development and the sequence of evaluation tasks recommended by the Center for the Study of Evaluation at UCLA.

Figure 1.--Program Development.


NEEDS ASSESSMENT
PLANNING THE PROGRAM
IMPLEMENTATION EVALUATION
PROGRESS EVALUATION
OUTCOME EVALUATION

Needs assessment involves stating the broad objectives to be met and determining how well the teachers are currently meeting these objectives. This information is then used to identify the inservice training needs.

During the program planning phase, procedures are built into the inservice training program for assessing whether it is operating as planned and how well it is achieving its objectives.

Implementation evaluation involves monitoring the inservice education program to determine the extent to which the elements of the program have been implemented as planned.

Progress evaluation provides information about the effectiveness of the program components in meeting the objectives. This information is used to determine where program modifications are required.

Outcome evaluation provides information about the effectiveness of the entire inservice training program. This information can be used to support decisions to modify, maintain or discontinue the inservice education program.

What Activities Are Involved in Conducting Evaluations?

Evaluation activities can be organized in five major categories:

(1) Needs assessment
(2) Planning the evaluation
(3) Collecting evaluation information
(4) Information analysis
(5) Reporting

These activities will be discussed in the following sections.

Needs Assessment in Career Education

Career education is an ongoing, multifaceted activity. Students are the intended beneficiaries. They are supposed to learn more about themselves and careers and to become more effective planners and decision-makers. Their classroom experiences are supposed to change. Teachers are supposed to present subject matter in new ways, incorporate outsiders and new media into teaching, and test for new student competencies developed through the changes.

Your job is to assist teachers in changing. As your first task in inservice, you will want to find out where the teachers are and where they should be in respect to promoting career development. This is called needs assessment. Since your inservice efforts are not an individual effort, start at the very beginning involving those affected by the school or the district's career education efforts. Thus, your first step in needs assessment of teachers is obtaining the involvement of those affected by it, that is, the teachers themselves, students, parents, community, school administration. The involvement may be minimal, such as informing a group that it is in progress, but it may well consist in forming a committee to proceed through each of the following steps. In any event, participant involvement should be meaningful, for needs assessment is the beginning of inservice and those asked to help will want to be in on the ground floor.

The second step in needs assessment is fixing the goal or goals of your inservice--the competencies which teachers should have and utilize. First agree on the broad goals and then more specific goals within those broad areas. Most frequently, career education requires teachers to be active in promoting at least three areas: self-awareness, career awareness, and decision-making and planning. Verify this with the administration, your school's parents, students and teachers by sampling a few, and as you do it, ascertain whether they have ideas about how the broad goals should be promoted or whether they might even be able to describe exemplary practices. The modules of this workshop should give many additional ideas about specific practices. In addition, your community may have special goals which should be considered in planning inservice.

The third step is to determine how close to the target goals the present achievement of students and current practices of teachers are. Remember that the objective of any change by teachers is improved performance by students. Consequently, even before examining discrepancy, set priorities for teachers, considering student achievement. If, for example, students have appropriate career knowledge, career awareness would not be a high priority even though teachers are not doing career awareness in their classes. Data may already be available on the broad career development of the students from the placement or counseling office. If not, several career development tests and surveys are available, including: The Career Maturity Inventory, J. D. Crites, New York: McGraw Hill, 1973; The Career Development Inventory, D. E. Super et al., New York: Teachers College Career Pattern Study, 1971 and 1976; The New Mexico Career Education Test Series, C. C. Healy and S. Klein, Los Angeles: Monitor, P.O. Box 2337, Hollywood, CA 90028, and The Assessment of Career Development, American College Testing Program, Boston: Houghton-Mifflin, 1974. To ascertain need through these tests, only a small sample of students need complete each one. In addition, interviews with teachers, students, counselors and parents will also clarify the needs.

The next part of step three focuses on teacher practices. Are teachers working in the three broad career development areas? What methods are they using and how effective are the methods? Are business/industry resources integrated in instruction? How effective is instruction: do teachers know the level of their students' career development and the expectations which students, administrators, and community have of teachers in career education? Are the business/industry and volunteer organizations of the community interested in participating in local career education?

These data can be obtained through interviews with teachers, students, and administrators and community people, by observation of teaching, or more indirectly by review of current curriculum and filed lesson plans. Again, your vocational education department or a local service group may already have some of the data or be enthusiastic about collecting it for you.

The fourth step is determination of effective methods whereby teachers can be assisted to do the desired practices. Ask about such things as the kind of inservicing arrangements which teachers would like and believe would be effective, the kinds of inservice which helped them before, the help (released time, community/business helpers, materials, administration support, pay credit, etc.) which is available for inservice, the time span within which results are expected.

The fifth step is the setting of priorities in terms of the discrepancies which were observed in step 3 and the possible approaches and sources of help which were suggested in step 4. Set target goals which can be met, are most needed, and will be visible, in that order. A numerical rating of each possible goal in relation to these three criteria may well help in the selection. Remember, of course, that inservicing, like career education, may need to be long term. Consequently, select meaningful but especially achieveable goals within the time available for the teachers targeted. And involve at least teachers and administrators in deciding on a priority, using, if necessary, the delphi technique. (See Module 5, Attachment 3.)

Finally, the sixth step involves reporting your findings and conclusions and discussing them with those affected. Again, being a party to the planning and to its accomplishments should increase cooperation as inservice gets underway.

Some Cautions About Needs Assessment

Inservice training is your primary objective. Needs assessment enables you to offer relevant service, but be careful that you don't spend too much of your available time and resources at it. That means involve only so many on a committee and ask only a limited number of questions of a few people. As you consider needs assessment, decide what is essential to learn and how you can discover that in a reasonable period. Remember especially, however, the benefits of sharing the workload and that others in your school, district, or community may have the information or responsibility for obtaining the information you need.

In needs assessment the objective is accurate information. Remember that who comprises your samples is much more important than how many. Try to obtain random samples. Likewise, systematic information-gathering will produce better results than a haphazard procedure. Compose a list of clear questions for interviews or, if you are talented in constructing questionnaires, compose one. Of course, train those who gather data for you.

Extra data are often useful in research studies, but for needs assessment they are frequently distracting and their collection and processing will unduly prolong the operation. So decide on your need before starting and collect only that. See note below.

Planning the Evaluation

To be effective an evaluation must produce information that is useful in improving or certifying the inservice training program. This can be accomplished by identifying the information needs of the evaluation audience and planning the data collection to meet these needs.

Formulating Evaluation Questions

The first step in planning an evaluation is to clarify the information needs of the evaluation audience. This often takes the form of a series of questions which must be answered in order to make the desired decisions. These questions can take the following forms:

1. To what extent were the program's goals achieved?
2. Were the program's activities implemented as planned?
3. How effective were those activities in achieving the goals?
4. For which groups was the program most/least successful?
5. How did internal and external social and political factors influence the program's development and impact?
6. What social and political effects did the program have on the environment in which it was implemented?
7. What did the program cost?
8. What are the consequences of participating in the program?

NOTE: The next few pages describe a needs assessment procedure which might be completed to identify students' career education infusion needs.

In the improvement evaluation context, the evaluation questions are usually concerned with the extent to which the program has been implemented as planned and is making progress toward achieving its goals. In formulating the evaluation questions it is useful to first specify the program's goals and activities and the kinds of information that will be acceptable as evidence of program merit.

Assessing Career Development Needs

The first thing to do in helping someone is to find out the kind of help he needs. This involves determining what he needs to learn and practice, and what general assets he has which will help him to learn and practice. Classroom teachers of all subjects do this kind of needs assessment routinely at the start of each new course. An English teacher, for example, in greeting her new 10th graders will observe such things as reading ability, knowledge of grammar, library skills, etc., to decide where to start and how to proceed.

In the same way, the teacher who is seeking to help students advance their career development will first ask where the students are and how best to proceed. You use the same methods--test, review records, confer with previous teachers, and interview a sample of students. The primary difference is in the questions you ask. Instead of achievement in a subject, you focus on accomplishment of career development tasks.

Career Development Tasks

There are many things we don't know about career development, but we are pretty sure about some important factors. This assurance allows us to set up educational objectives that are likely to help people have happier and more productive careers.

Perhaps our most important discovery is the recognition that career development is a process consisting of a series of related steps. A career starts long before the person leaves school, for adult careers depend on adolescent experiences and achievements. Adolescents who accumulate information about education and occupational opportunities, who learn and practice planning and problem solving and accept responsibility for their decisions, and who work to identify and strengthen talents and interests are more likely than other adolescents to have satisfactory careers.

General Career Development Tasks

Facts such as the preceding have prompted vocational psychologists to specify tasks for people to accomplish during various stages of life in order to have a fulfilling career. Unfortunately, there is no one set of tasks appropriate for all persons in any one culture. For your information, we have included a set of tasks believed appropriate by some of the leading vocational theorists (Module 6, Attachment 4). We do not want you just to accept and use their list. Rather, in recognition of your experiences with students, we want you and your colleagues in the workshop to develop lists suitable for your students. Those lists will probably contain several of the tasks from the experts' list and possibly some particular tasks which you and your workshop colleagues have observed as important in career development.

Surveying Your Own Students

Once you develop your list, you will want to have students in one of your classes respond to it. That will give you general ideas about their needs. The next step in your needs assessment is to interview a small sample of your class to obtain additional information about their career development needs and to get some leads about how to proceed in helping them. In the workshop you and your colleagues can compose questions.

You, of course, are not alone in your school district in contributing to student career development. To avoid duplication, therefore, you will have to know what others are doing. In addition, you will want to know about resources available to you, and you will want to consider how various methods of assistance can be coordinated. These topics are discussed in other modules.

Evaluation Questions

Typical evaluation questions concerned with the extent to which the program was implemented as planned are:

> Were the teachers available for the inservice training sessions?
>
> Did the teachers complete the planning activities?

Typical questions requiring progress information are:

> Are the teachers implementing career education infusion in the classroom?
>
> Are the teachers able to answer the posttest items correctly?

The Project Cadre workshop is a useful and immediate model for illustrating the formative evaluation approach. Part of our purpose is to gather evaluation information which will guide us in the redesign and revision of our training workshop and materials.

One important intention was to develop a collaborative approach to career education training. We intended that districts and schools which participated in the project would send teams of educators to the cadre workshop, and that these teams would consist of people having various levels of responsibility for career education implementation at the local site. We hoped to include on the planning teams superintendents, directors, coordinators, school administrators, counselors, and teachers, particularly teachers who have staff development responsibilities.

Our goals, activities, and evidence of program merit for this goal look like this:

EXAMPLE 1

Goals	Activities	Evidence of Program Merit
1. Establish a collaborative approach to cadre training, e.g., recruit teams of planners representing different levels of district/school responsibility.	1a. Send letters of intent which define "collaboration" to state coordinators and training site coordinators.	1b. Cadre planning teams consist of various kinds of educators, including at least one decision-maker or school administrator.
	1b. Conduct on-site pre-planning sessions with site coordinators and principals of participating schools.	

Concerning program implementation, our evaluation questions would be:

> Did the staff complete the pre-planning sessions with site coordinators and school principals?
>
> Were "collaborative" teams of cadre planners recruited for the training?

Concerning progress information, we would want to know:

> Are the planning teams who receive the training composed of people having various levels of responsibility in the local district/school?
>
> Do the planning teams have local administrative and decision-making support for the local implementation of career education infusion?

Similarly, we have eight sets of training materials and methods targeted towards the accomplishment of many learner objectives. Following the delivery of each module, we administer a progress test to monitor the progress which the program is achieving. If cadre cannot complete the items on the progress test, we ask what it was about our materials or delivery which prevented their learning. If the progress tests are completed accurately, we accept the test data as evidence that the training program is working as intended.

Another of our evaluation steps in the improvement context involves the cadre planning teams' development of a local implementation plan.

We want to know:

1. Can the cadre teams apply the learning that takes place as a result of the delivery of a training module during the team planning session? Do they know should go into the plan?
2. To what extent do the cadre implementation plans satisfy a set of preestablished criteria for the effective development of the plan?
3. What does the planning activity tell us about the structure and format of the planning forms and the criteria we preestablished? How might the plan be revised and improved for future use?

Collecting Evaluation Information

The second step in planning an evaluation is to decide what information collection techniques will be required to answer the evaluation questions.

Information Collection Techniques

There are seven major techniques for information collection: performance tests, archive reviews, rating and ranking scales, observations, interviews, questionnaires, and achievement tests.

Performance tests involve having an individual perform an activity or task and making an assessment of the quality of his or her performance. Performance is usually measured by an observer or group of observers using a pre-specified set of criteria. Examples of performance tests include having an individual prepare a plan for establishing an inservice training program and comparing the plan against a set of criteria, or having a group of experts observe a teacher instruct a class and then rating his/her performance. Project Cadre asks participating teams to develop a local career education inservice plan which satisfies a list of criteria for such a plan.

The major advantage of performance testing is that it relies on tasks that are close to "real world" activities. Its major disadvantage is that it is usually a time-consuming and expensive means of collecting evaluation information.

By using rating and ranking scales, a person can assess himself/herself, other individuals, groups, events, products or other kinds of stimuli on a given dimension so as to obtain a numerical score for each thing that is rated. An example of a rating scale follows:

> Indicate how important you feel it is to infuse career education in the classroom by circling the number that represents your opinion:

1	2	3	4	5
Very Unimportant		Somewhat Important		Very Important

An example of a ranking scale is giving a teacher four alternatives for increasing self-knowledge and asking him/her to rank them from one to four according to how useful he/she feels each one is. The advantage of rating and ranking scales is that they are relatively inexpensive to construct, they are usually easily understood, and the information they provide lends itself to analysis. Their disadvantages are that they are subject to many types of bias or response sets. Some raters are lenient and others are not. The raters may have had differential exposure to the items being rated and base their ratings on personal feelings. And raters may be asked to make distinctions when they do not perceive any differences.

Record reviews refer to information collection techniques in which information is extracted from program documents. In a program where career education infusion practices are taught, the evaluator may review the teachers' lesson plans to see if they implemented the infusion practices. The advantages of this technique are that it is unobtrusive in the sense that information collection does not interfere with the program being evaluated, and that it is relatively inexpensive. Its disadvantages include having to contend with problems associated with obtaining and using records and possible disorganized or unavailable documents.

Another information collection technique involves observations of individuals or program activities. The information collected during observations can be reported via checklists, rating scales, field notes, or summary reports. In an inservice training program observations of a training session might be used, for example, to determine if training took place according to plan. The advantages of the observations are that they are often the only feasible and economical way to gather certain kinds of information. The disadvantages of this technique are that they are time consuming, can require specially trained observers, the teachers being observed may change their actions because of the presence of the information collector, and several observers may be needed to obtain reliable results.

An interview is an information collection technique in which a person talks with another person. The information gathered can be recorded on field notes, structured interview forms, summary reports, or other forms. Interviews can be completely unstructured or the kinds of questions to be asked can be predetermined, or both the questions and the response categories can be prespecified. Interviews might be used, for example, to find out why teachers did not implement career education infusion practices. In a 60-day follow-up to the training workshop, Project Cadre will interview cadre to find out to what extent the team's inservice plan was implemented as intended--and why or why not. The major advantage of the interview is that it can make in-depth probes of sensitive subject areas such as attitudes and values. Its primary disadvantages are that interviews are time-consuming and costly, and that information collectors must be specially trained.

Questionnaires are self-administered survey forms that consist of a set of questions. Answers to questionnaire items can require free responses or can be structured into forced choice items. The major advantages of questionnaires are that they are relatively inexpensive to construct and the resulting information is easily analyzed. Their major disadvantage is that they limit the kinds of information that can be obtained by prespecifying the questions and often the response categories as well.

Achievement tests are pencil and paper measures of an individual's competency in a given subject matter area. Project Cadre's pretest, progress tests, and posttest are tests of cadre competency in relation to learner objectives for eight subject matter areas.

Achievement tests can be developed by the program staff, as was done in this case, or they can be purchased from publishers. There are several ways in which achievement test scores can be reported. Norm-referenced test interpretations report scores in terms of an individual's relative standing in a group (e.g., percentiles), while criterion-referenced interpretations, Project Cadre's approach, report scores in terms of an individual's having or not having met certain preset performance standards. The advantage of achievement tests is that they can be administered to large groups at relatively low costs. Their disadvantages are that to insure their accuracy, the tests must be properly validated, and this can be a costly procedure. Project Cadre staff were able to validate the items in its achievement tests because its staff included people with expertise in the subject matter tested. Criterion-referenced achievement tests require a judgment as to their content validity and content validity is established through the opinion of experts.

Selecting the Instruments to Be Used

The next step is to determine what instrument will be used to assess each objective and who will respond to the instrument. A table which lists the instruments to be used in the evaluation, the individuals who will be given each instrument, and the objectives measured, provides an easy means of checking that plans have been made for assessing each objective. Such a table also assists in planning the construction and administration of the instruments. The figure below presents a list of instruments which might be used in an improvement evaluation of an inservice training program.

Figure 2.--Instruments for formative evaluation of career education inservice training.

Instrument Chosen	To Be Given To Whom?	Objectives Measured
activities checklist	inservice trainer	program activities
achievement test	teachers	career ed concepts
questionnaire	teachers	identify problems in infusing career ed

The Project Cadre instrumentation looks like this:

Figure 3.--Project Cadre instrumentation.

Instrument Chosen	To Be Given To Whom?	Objectives Measured
activities checklist	evaluator/program developers	program development/ implementation
achievement tests	cadre	career ed concepts, program development and evaluation concepts
performance test (local inservice planning)	cadre planning teams	local implementation
interview	teachers	identify problems in infusing career ed

Determining the extent to which a program was implemented as planned requires documentation of the program activities. When the program is carefully described so that it can be replicated by other trainers, using a checklist provides an effective method of documenting the program objectives. A checklist can be easily constructed from the program description and encourages the program developers to be more precise in their description of the program. The checklist should include the materials used, procedures followed by the inservice trainers, activities in which the trainees participated, and any activities prescribed for other participants, e.g., industry representatives. A checklist may be completed by the inservice trainer and does not require additional personnel.

Additional sources of information about program activities include interviews with teachers who participate in the training to ascertain their perceptions of the program activities, and examination of records kept over the course of the program.

Several different information collection techniques may be used to collect information pertaining to the same evaluation question. When the evaluation deals with areas that are difficult to measure, such as attitudes, values, and beliefs, it may be necessary to get several perspectives in order to get at the truth. For example, teachers, parents and students may have very different attitudes about the merits of career education. It is important to avoid overusing this approach, however, because it can result in an unmanageable amount of data that are costly to collect, read, analyze and interpret.

In selecting the type of instrument that will be used to assess the achievement of inservice training objectives, it is important to consider the credibility of the data obtained by the method, the availability or ease of construction of measures, the ease of administration, and access to the data source.

An Evaluation Design Strategy

A design strategy is a convenient method for describing the ways in which people are grouped and treated for evaluation purposes. It indicates what groups will be measured and when. There are many design strategies that have been applied to the evaluation of education programs. A case study is used to examine a single, cohesive group. Cadre inservice is likely to involve this kind of design. Educational psychologists frequently call case study designs "pre-experimental" since studies of this kind are usually conducted to establish the existence of certain outcomes which, if they exist, are then considered ready for testing in more controlled situations.

Closely associated with the evaluation's design strategy are sampling procedures that guide the selection of persons to be included in the evaluation and the assignment of these persons to groups. In an evaluation that uses a case study design, sampling simply involves selecting persons to be included in the evaluation.

Sampling also has implications for the way in which the evaluation findings can be interpreted. Consider a case study design used in an evaluation of an inservice training program in which all participants are volunteers. Because the participants have not been selected in any systematic manner, but are instead volunteers, the evaluation's findings could not be generalized to other groups of teachers. This restriction would come about because there would be no way of knowing whether some special, self-selecting factor motivated these persons to join the group, thereby making them uniquely different from other teachers.

Schedule the Remaining Evaluation Activities

The remainder of the evaluation activities will be begun or completed after the program planning is completed. Time should be allotted in the program plan for these activities. They include obtaining or constructing instruments, administering and scoring instruments, recording scores, analyzing data, interpreting data, and writing the report. Each of these activities will be discussed briefly in the following.

Schedule the time for obtaining or constructing instruments. This should include time for a tryout. Tryout is an important step and should not be skipped, because the usefulness of the evaluation information depends on accurate data. This is as important for questionnaires as it is for criterion-referenced tests.

The time and place for the administration of each instrument should be planned. Some instruments will be employed only once, while others will be repeated several times (pre/post). It should be decided who will administer the instruments and whether special training will be required.

Time should be allocated for scoring, recording and analyzing the data. Whether you need to perform statistical tests depends on the evaluation design and measurements. If you are attempting to improve a program, a comparison of the results with the expected results may be all that you need.

In the improvement context it may not be necessary to prepare a formal evaluation report since the program developer is the evaluation audience.

An evaluation report should include the following elements:

1. Summary.
2. Purposes of the evaluation. This includes the context, audience, and evaluation questions.
3. Background information. This section includes descriptions of the origin, goals, and characteristics of the program, and the administrators, inservice trainers, teachers, and students involved.
4. Description of the evaluation study. This includes the evaluation design, instruments used, and data collection procedures.
5. Results.
6. Discussion of results.
7. Cost benefit analysis.
8. Conclusion and recommendations regarding the program or subsequent evaluation studies.

The purposes of the report, background information, and description of the study can be prepared at the time the evaluation is planned and will reduce the time required to prepare the final report. This can be very important when the time between the final data collection and the due date of the final report is short.

Module 8

COACHING CLASSROOM TEACHERS WHO EXPERIENCE CAREER EDUCATION INFUSION PROBLEMS

Purpose

The module has two purposes: (1) to provide cadre with a problem-solving strategy, and with training to use this strategy effectively in consultation with teachers who have received infusion inservice but are experiencing classroom implementation problems, and (2) to equip cadre with basic principles of learning and behavior which can be applied to a wide range of planning-teaching-learning problems. Cadre will be afforded an opportunity to practice the problem-solving strategy proposed.

Rationale

Transfer of learning historically has been a major stumbling block to effective off-site inservice training. Teachers who receive career education infusion training can be expected to meet unanticipated problems as they attempt to implement the new learning in the classroom setting. The culture of the school and the classroom is highly different from the inservice workshop.

Cadre can provide continuing inservice and "coaching" to teachers they train if they themselves are equipped with a systematic problem-solving method applicable to a broad range of career education infusion problems, such as teachers' lack of time for curriculum planning, or conflicts with department heads. Research has shown that systematic problem-solving identifies a greater number of effective solutions to problems than does guessing, intuition, or trial-and-error methods.

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LEARNER OBJECTIVES

1. The cadre will define problem-solving as a systematic, replicable method for removing obstacles to long-range plans.

2. The cadre will identify the sequence of steps inherent in the cognitive-behavioral approaches to problem-solving.

3. Given descriptions of problem situations and the verbal cues and questions used in a standard problem-solving approach to cognitive-behavioral problems, the cadre will identify with 80 per cent accuracy any omitted or misplaced cues and questions.

4. The cadre will explain the guided-inquiry problem-solving procedure, such that the method is characterized by its problem-solving steps and by its use of problem-related principles from the behavioral sciences to guide clients to testable courses of action.

5. The cadre will recall at least three principles of learning, motivation, and/or planning which might guide teachers to a solution for given career education infusion problems.

6. Given a basic principle from the behavioral sciences, e.g., learning is facilitated by immediate feedback of results, the cadre will select from a list of hypothetical infusion problems the problem for which the principle would be most appropriate.

7. Given descriptions of the verbal responses used by a teacher to guide a client through a step or series of steps of the guided-inquiry problem-solving method, the cadre will decide whether the step or steps of the method were completed adequately.

8. The cadre will implement the guided-inquiry problem-solving method as modeled, using verbal responses and cues consistent with the method's response categories with at least 80 per cent accuracy.

COACHING CLASSROOM TEACHERS WHO EXPERIENCE CAREER EDUCATION INFUSION PROBLEMS

Few teachers can be expected to attend an inservice on a matter as emerging and elusive as career education infusion and return to the classroom setting an accomplished practitioner. No matter how effective the inservice, the teacher can be expected to experience a wild array of transfer problems. It happens all the time, from the workshop to the organization, from the counseling session to the interpersonal relationship, from the inservice to the classroom. The best remedy is on-the-job training, or, in this case, within-school coaching.

Unless the teacher is philosophically or theoretically opposed to the notion of career education infusion, infusion problems are likely to fall into the cognitive-behavioral category. A problem is cognitive if goal attainment is prevented because of uninformed, unrealistic, or misguided thinking; it is behavioral if goal attainment is prevented by a contradictory or self-defeating pattern of activity. The teacher is likely to define his implementation problems as lack of time to develop infusion strategy, lack of administrative support, insufficient infusion techniques, an unclear connection between infusion practices and traditional instructional methods, a conflict with parents, other teachers or supervisors, student apathy, or inadequate sources of information or resources.

A Cognitive-Behavioral Approach to Problem-Solving

Each of these kinds of problem situations might be characterized as an obstacle to a teacher's goal of career education infusion. In each case, systematic problem-solving represents the likeliest chance for an effective solution.

bj. 1 Cadre, in fact, might conceive of problem-solving as a systematic and repeatable method for removing obstacles to the long-range goal of effective career education infusion. Systematic means the method has its parts or elements arranged in logical order; repeatable means the method is defined operationally so that many people can use it in the same way. If planning refers to a process for achieving goals, problem-solving refers to a process for removing obstacles to established goals.

Cadre should take time now to list the identifiable obstacles to career education infusion in their school or district. Why do you feel these factors are likely to stand in the way of effective infusion?

The problem-solving approach to cognitive-behavioral problems consists of several interlocking steps. As outlined by Healy's monograph,
j. 2 Career Counseling for Teachers and Counselors, these are: defining the objective and the obstacles to accomplishing it, identifying alternatives for surmounting obstacles, weighing the alternatives and selecting one, implementing the alternative, and achieving the goal or recycling the process.

Consider the approach for the case of a young high school woman indecisive about the immediate future. She doesn't see herself as a professional, but would like a vocation. Homemaking does not seem enough. But she lacks direction, doesn't know what she would like to do.

The cognitive-behavioral approach might help the young woman establish the identification of a suitable vocational training program as a problem-solving objective. The obstacles might include the girl's failing to clarify her personal interests and abilities, as well as a lack of information about the range of available vocations. Lack of self-knowledge might be identified by the girl as her major obstacle. Alternatives for improving the situation might include talking to significant others, systematically reviewing her experiences, interest and ability testing, a career planning course, or investigating promising occupations.

She might, as a first step, join a group counseling session on self-discovery. Risks are limited if the counselor is qualified. With the counselor's help she can set performance objectives for counseling to monitor how well she is doing. If counseling does not clarify her interests and abilities, she can try other steps. She enrolls in the counseling session and evaluates its effects. A new goal is established and the problem-solving process recycled.

As her counselor, what other alternatives might you have helped the high school girl consider to clarify her interests and abilities? How would you help her examine the probable consequences of several of the alternatives listed?

Guided-Inquiry Problem-Solving

A systematic procedure which embodies the cognitive problem-solving approach, and reaches beyond it, has been called Guided-Inquiry. Guided-Inquiry not only helps clients solve problems by giving cues and by asking questions which guide them through the sequence of problem-solving steps, but it teaches problem-solving principles and ideas which contribute to a testable solution for the problem.

The process of Guided-Inquiry problem-solving is highly similar to other cognitive approaches to problem-solving: defining goals (in performance terms, if appropriate), clarifying obstacles, generating
bj. 4
alternatives, examining consequences, selecting an alternative, forming a plan of action, trying the plan, evaluating it and recycling where necessary. The method has this difference: at each step, particularly at the obstacles and alternatives steps, the coach is prepared to teach ideas or principles from psychology or other behavioral sciences which are intended to help the client comprehend his problem more fully, and to identify possible solutions. As a problem-solving guide or facilitator, the coach must be highly concerned with the client's feelings and should deliberately build a warm, accepting, problem-solving atmosphere.

Beginning on p. 277, the method is described more comprehensively in three ways: (1) by stating the counselor's purpose at each stage, (2) by examples of the inquiry questions appropriate to each stage, and (3) by the need for clarification and verification of the client's responses at each step.

Review the method now and apply it to an implementation problem you will likely experience with career education infusion.

Take, for example, the rather common teacher complaint that he/she just doesn't have enough time to plan for career education infusion.

The coach might begin by asking the teacher to describe what would
bj. 3
be different about the problem situation if he/she had the ability to change things.

Guided-Inquiry Approach to Problem-Solving

I. Steps in the problem-solving sequence

1. Definition of goals.

   A. Focus and define teachers' goals in behavioral terms.

   B. Examples of inquiry-type questions:

      1. What is it you want to do? change? accomplish?
      2. What will be different when this situation changes? Obj. 7
      3. Could you be more specific? What will the teacher do or say?
      4. How do you want to act or feel?
      5. How do you want the teacher to act or feel?

   C. Restate teachers' responses for clarification or verification.

2. Clarification of obstacles.

   A. Focus and clarify the obstacles to the teachers' achievement of their goals.

   B. Examples of inquiry-type questions:

      1. What seems to be standing in your way? What else?
      2. What has to be changed before this goal can be achieved?
      3. Why do you suppose you are unable to do what you want to do?
      4. What are your hunches about the obstacles to your goals?
      5. Can you make some guesses about why you are stuck?
      6. What has stopped you from reaching your goal?

   C. Restate teachers' responses for clarification or verification.

3. Generation of alternatives.

   A. Focus and clarify the alternatives available for surmounting obstacles and attaining goals.

   B. Examples of inquiry-type questions:

      1. What alternatives can you think of that might overcome these obstacles?
      2. How might you get around these things? What can you do?
      3. How might you solve this problem?

    4. Can you think of anything to do about this?
    5. What steps might you take?
    6. What else can you do? try?

C. Restate teachers' responses for clarification or verification.

4. Examination of consequences.

A. Focus and clarify the probable consequences for each alternative.

B. Examples of inquiry-type questions:

    1. What is likely to happen if you do that?
    2. What might be the result of your doing this?
    3. What might occur if you tried that?
    4. Can you see any undesirable consequences if you do that?
    5. What could go wrong if you do this?

C. Restate teachers' responses for clarification or verification.

5. Choosing a course of action.

A. Focus and clarify an alternative to try, and prepare a plan of action.

B. Examples of inquiry-type questions:

    1. What seems to be the best way to act in this situation?
    2. Which of these courses of action would you like to try?
    3. Are you willing to try a particular alternative?
    4. Will you try that? What are you going to do?
    5. Will you do this? How do you intend to proceed?
    6. How are you going to do this?

C. Restate teachers' responses for clarification or verification.

II. Teaching psychological concepts and principles

1. Teaching concepts and principles.

A. State a concept or principle from the behavioral sciences whenever the teacher cannot proceed through the step-by-step inquiry of the problem situation.

B. Process of teaching psychological principles.

    1. State the principle.
    2. Define the concepts contained within the principle.

3. Give examples of each concept.
4. Ask teachers to give an example of each concept.
5. Give an example of the principle.
6. Ask teachers to give an example of the principle.
7. Ask teachers to apply the principle to the problem situation.
8. Repeat as necessary.

At first the teacher says he/she would arrange things so he/she would be responsible for only half the students now in his/her class, thereby increasing the time for planning and individualized instruction. The coach restates the teacher's goal statement, but adds, "In thinking about this situation, have you reminded yourself that setting unrealistic goals usually leads to negative consequences?"

After conceding that setting as a goal a reduction in class size by 50 per cent is unrealistic, the teacher decides that he/she would like to have three additional planning hours a week for CE infusion. When the coach restates this goal for verification, the teacher indicates he/she would prefer the three-hour planning time be distributed as three one-hour planning sessions during the week. The coach says, "So your objective is to schedule your time to allow for three one-hour infusion planning sessions, say, Monday, Wednesday and Friday." The teacher nods agreeably.

The important goal-setting step is complete. Implicitly, the problem has been redefined from an external locus of control ("I just don't have enough time"--a problem of circumstances outside of me and, therefore, outside my control) to an internal locus of control ("I have to schedule my time more efficiently"--a problem of time management).

The problem-solving sequence proceeds.

The coach asks the teacher, "Why do you suppose you are unable to schedule your time adequately?" After a series of similar questions intended to clarify obstacles to efficient time management, the teacher identifies as the prime obstacle a personal lack of time management skills.

After the coach points out that, "Planning to manage one's time efficiently can be learned relatively quickly in a variety of ways," the teacher decides he/she should review a number of time management plans and determine which seems best suited to his/her personality.

A specific technique, the Bates Time Management Plan (Attachment 1), is selected, the consequences of using it are examined, and an implementation plan is developed.

The coach reminds the teacher that "behavior that is rewarded is likely to be repeated," and helps the teacher identify a way to reward himself/herself each time the implementation plan is followed accurately.

Many variations of the approach are possible. In the example provided, if the teacher's obstacle to setting aside infusion planning time had been circumstances truly beyond his/her control, the coaching could have shifted to clarifying values and ordering priorities. In any event, Guided-Inquiry procedures should prove most helpful to cadre at the problem-solving stage of the inservice they provide teachers; that is, after they have inserviced teachers on the infusion of self-awareness, planning and decision-making, and career awareness.

A key element of the approach, as has been evident, is the cueing and teaching of basic principles of learning, planning and behavior.

By principle is meant a rule which tells how two or more concepts are generally related. The next section reviews some of the principles most commonly applicable.

Some Principles of Learning, Motivation and Planning

The effective use of the Guided-Inquiry approach depends somewhat on the user's ability to teach principles from the behavioral sciences, particularly from the psychology of learning, which, when applied to the problem situation, should pinpoint the nature of particular obstacles to a goal or indicate an explanation of why obstacles exist, or possible alternatives to obstacles, or what will be the probable consequences of each possible alternative. Once a client sees the relationship between his problem and a psychological principle, the next step toward solving the problem can usually be taken.

Below are some of the most commonly used principles from the Obj. 5 sciences of learning, motivation, and planning. One or more should prove applicable to the problems teachers experience as they attempt to infuse career education with regular instruction.

Common principles of learning:

1. People need to know what is expected of them.
2. Different people are likely to achieve similar results by different methods.
3. Complex tasks need to be broken down into simpler components.
4. Role expectations structure the learning situation.
5. Different role expectations lead to different perceptions of the same situation.
6. Learning is likely to increase if the learners perceive the purpose(s) of the learning task.
7. Immediate feedback of results facilitates learning.
8. Learning and appropriate practice are strongly related.
9. High anxiety reduces the probability of learning.
10. Accurate modeling facilitates learning.
11. Accurate feedback in a supportive context facilitates learning.

Can you think of one or two additional general principles of learning? Can you anticipate an infusion problem to which one of the above principles is applicable?

Common principles of motivation:

1. Behavior that is rewarded is likely to be repeated.
2. What is rewarding for one learner may not be rewarding for another.
3. Intrinsic rewards can be just as satisfying as extrinsic rewards.
4. Achievement is more likely if learners take responsibility for their own learning.
5. Positive reinforcement of desired behavior should be repeated on a continuous schedule throughout the learning tasks.
6. Negative reinforcement tends to reduce motivation for learning.
7. Motivation for learning increases when the learner can help decide goals and learning activities.

Add any additional principles of motivation you can think of. Can you anticipate an infusion problem to which one of the above principles is applicable?

Common principles of planning:

1. Planning with people is usually more effective than planning for people.
2. Planning begins with identifiable needs and statements of verifiable results.
3. Planning is more likely to succeed if it is done systematically.
4. Planning is likely to succeed to the extent one is clear and precise about the planning objectives.
5. Planning improves as a result of brainstorming with those who are likely to be affected by the plan.
6. Planning is likely to be more successful if the planning involves all the people likely to be affected by the plan.
7. Accurate data bases improve planning.
8. Plans using feedback from similar previous plans are more likely to succeed than plans which ignore such feedback.
9. The course of action most likely to prove effective will be the course of action which requires the most energy.
10. Decisions are likely to be more effective if they are made in accordance with pre-established priorities.

Try now to apply one of the planning principles to a career education infusion problem you have experienced or can anticipate.

Below are some hypothetical infusion problems teachers can be expected to experience. Try to match each problem with a principle listed above that indicates a possible solution.

Obj. 6

1. During the first semester of a career education infusion project, each teacher is assisted for one hour each week by a local infusion expert. Throughout the semester Mr. Kimura tries some infusion practices and discusses them each week with the expert. The following semester Mr. Kimura does no infusion.

   (Learning: 1, 5, 7) (Motivation: 1, 3, 4, 5, 7) (Planning: 6, 9, 10)

2. Ms. Anderson is informed that her district has planned for all teachers this year to do 10 units designed to be an infusion of career education. These are already made and must be delivered exactly as written. Ms. Anderson does them but she gives them a very low evaluation.

   (Planning: 6, 11) (Motivation: 4, 7) (Learning: 6, 11)

3. Mr. Jackson is enthusiastic about the idea of infusing career education into his math classes, for he wishes that he had learned about how math is used in various careers. He plunges into lessons on careers in math and finds that the math content of his course is not being learned as well by the students, though they are very interested in the career lessons and learn that very well.

   (Planning: 2, 3, 4, 10) (Motivation: 2, 3) (Learning: 1, 6)

4. Ms. Hernandez and Mr. Jacobs are both 11th grade English teachers. They each try out a career education infusion practice of producing a class newsletter on students' summer activities (part-time jobs and other activities). The one produced by Ms. Hernandez's class is longer, has more variety, and the students are more enthusiastic about it. In evaluating their efforts, Ms. Hernandez and Mr. Jacobs find that Ms. Hernandez gave her students much more choice in the design and content of their newsletter than did Mr. Jacobs.

   (Motivation: 4, 6) (Planning: 1, 5, 6) Learning: 2, 4, 5, 6)

5. Ms. O'Hara has just attended a series of workshops on infusing career education. She feels it's a very important and relevant idea. She really wants to develop a comprehensive program of career education for faculty at the school, but has a full schedule of classes to teach and just doesn't have time. She decides to try anyhow, but finds she is just wearing herself out, and gives up.

   (Planning: 1, 3, 4, 6, 7, 10) (Learning: 3) (Motivation: 1, 6)

Assumptions and Applications

It should be seen that the Guided-Inquiry approach assumes that solutions to problems will be more effective if they are derived from established psychological and behavioral principles. Cadre who work with teachers, for example, who do not implement the infusion techniques more than once or twice are more prepared to improve the situation if they realize the teachers can find no personal or professional reward from infusion. A search for the motivating rewards for different teachers can then proceed. A tenable solution for some might be helping the teachers understand how a career emphasis during instruction has helped students achieve better in the subject matter area.

An important assumption of the Guided-Inquiry approach is that clients can internalize and learn to use the same problem-solving sequence the counselor uses. It follows that an important application of the Guided-Inquiry approach is to help teachers use the same problem-solving procedures cadre use to help them. If teachers can internalize the problem-solving steps and a number of useful principles applicable to a range of infusion problems, the teachers can solve many of their own problems and the need for cadre coaching is reduced.

One way to accomplish this quickly is to teach the Guided-Inquiry method, in the same way a psychological principle is taught, as a tool for problem-solving. Cadre can demonstrate the approach and indicate to teachers how it has been used to help teachers find solutions to an array of specific kinds of problems. Teachers can be expected to internalize the method efficiently if they are provided with demonstrations and with opportunities to practice the method on "real-world" problem situations. Obj. 8 During the remainder of this session on problem-solving with teachers, cadre will be given an opportunity to observe the Guided-Inquiry approach modeled and to practice the approach with staff and other cadre. Feedback will be provided. The expectation is that, with practice, cadre will perform the method with at least 80 per cent accuracy.

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Attachment 1

BATES TIME MANAGEMENT PLAN

Component Steps Toward Objective of Making Better Use of Time

Name ______________________________

1. ______ Have written schedule listing fixed activities (Master Plan)
2. ______ Listing weekly assignments with due date on (Hot Sheet)
3. ______ Making estimate of amount of time needed for each assignment
4. ______ Checking actual time used to make estimate of time more accurate
5. ______ Listing assignments on daily basis (Time Plan of Action)
6. ______ Pre-planning a block of time for curriculum development
7. ______ Using block of time for specified assignment
8. ______ Setting an objective for allotted time
9. ______ Setting specific amount of time for specific assignment
10. ______ Listing long-range assignments (for example, term paper)
11. ______ Planning time for long-range assignments in your weekly time plan
12. ______ Planning time for curriculum review in weekly Hot Sheet

A SELECTED LIST OF

EXEMPLARY INFUSION PRACTICES

EMPHASIZING SELF-AWARENESS, PLANNING AND DECISION-MAKING, AND CAREER AWARENESS

The infusion practices were selected from various sources in the career education literature and have been adapted in substance and format by Project Cadre staff to conform to project training specifications.

Subject: American History

Concept: Self-awareness
Career awareness

No. 1--LIFE ROLES TODAY AND YESTERDAY

RATIONALE:

Students can compare life roles of today with those of the past to increase their understanding of the relationship between citizen roles and lifestyles at different periods.

OBJECTIVE:

Each student will name the four major life roles, and name a specific role within each of the major roles for the present and for a given historical period.

DESCRIPTION:

1. Discuss the four major life roles (family, citizen, vocational, leisure) and how they have changed or not changed from any given historical period.

2. Have each student choose one of the roles and research that role today and the same role in a given period of history. The teacher can make up a list of possible choices for students.

3. Each student will write a composition comparing and contrasting that role today with the same role in the past and forming a conclusion about the changes or lack of them.

Personnel required: teacher

Cost: none

Time: discussion, 1 period; research, 1 period; write-up, 1 period

Resources: history texts, occupational handbooks, other written material

Impact on regular offering/curriculum goals: provides a present-day reference for historical concepts

Evaluation measures: teacher evaluation of composition; objective test

References: Ideas for Activities
Michigan Career Education
State Department of Education
Lansing, Michigan 48902

Subject: Science
Math (graphing)

Concept: Self-awareness

No. 2--GENETICS CHART

RATIONALE:

To enable students to appreciate their own uniqueness, to see the types of traits they possess and how they might have been acquired. Also for the student to recognize similarities and differences between his or her physical, intellectual and emotional characteristics and those of others.

OBJECTIVES:

1. Students will list five characteristics of human beings that are due primarily to heredity, and five that are due primarily to the environment.
2. Students will write in one paragraph what they learned about themselves.

DESCRIPTION:

1. Students explore simple dominant-recessive characteristics through study and film, then chart the following characteristics of themselves and, if available, their parents and grandparents: eye color, hair color, hair texture, skin (freckles, dark, light), extra digits, height, etc.

2. Discuss and list characteristics of humans that are due to heredity or that may be explained by the influence of the environment.

3. By means of a Punnett square, figure the possible offspring of a man who has brown eyes (but has the recessive gene for blue eyes) and curly hair (but has the recessive gene for straight hair), who marries a woman with the same traits and same genetic code.

Personnel required: teacher

Cost: none

Time: 1-2 periods

Resources: genetics resource books and articles, films, chart paper

Evaluation measures: teacher evaluation of students' participation; paper/pencil test

References: Ideas for Activities
Michigan Career Education
State Department of Education
Lansing, Michigan 48902

Subject: Social Studies

Concept: Self-awareness

No. 3--LEISURE ROLES

RATIONALE:

The individual should understand the relationship between leisure roles and lifestyles and learn to identify consequences, both positive and negative, associated with a societal increase in leisure time.

OBJECTIVE:

In a 3-page essay, students will name the three socioeconomic levels of society, their major leisure roles, and reasons for the differences between them.

DESCRIPTION:

1. Divide the class into three groups, each responsible for obtaining information on the leisure roles for one of the three major socio-economic groups in America: (a) upper class (rich); (b) middle class (average income); and (c) lower class (poor).

2. Each group will construct, by pictures, drawings, etc., the leisure roles of the socio-economic group they have chosen.

3. Group chairmen will present a short report on the group's findings to the class.

Personnel required: teacher

Cost: none

Time: assigning groups, 1/2 period; research and bulletin board, 2-3 periods; reports, 1 period

Resources: reference material; materials to construct a bulletin board

Evaluation measures: paper/pencil test; teacher evaluation of students' contributions to group research and bulletin board

References: Ideas for Activities
Michigan Career Education
State Department of Education
Lansing, Michigan 48902

Subject: English/Drama

Concept: Self-awareness
Planning and
decision-making

No. 4--FOUR SELVES

RATIONALE:

Students should understand that a person has many different personal characteristics, that it takes consideration of these characteristics to achieve goals, solve problems and make decisions; and that self-development is the result of interaction between personal characteristics and one's environment.

OBJECTIVES:

1. Each student will name and describe the four selves.
2. Given a set of thoughts and feelings associated with each of the four selves, students will correctly match them to the self to which they belong.

DESCRIPTION:

1. Divide the class into groups of four. Assign one of the following roles to each of the four members: (1) physical self; (2) intellectual self; (3) emotional self; (4) social self.

2. Each group makes up a whole person, and the students decide what they will call the person they make up and how he or she will handle one of the following situations:

    a. decide what to do during the day when school is cancelled
    b. find a way to make up with a friend after a fight
    c. find a summer job
    d. decide what to tell teacher about a homework assignment turned in late because he/she was "goofing around"
    e. other similar situations

3. Each group writes and presents a 10-15 minute play about the person they make up.

Personnel required: teacher

Cost: none

Time: 3-5 periods

Resources: any relevant literature on self-concept, roles; props for play

Evaluation measures: teacher evaluation and feedback to students; paper/pencil test

References: Ideas for Activities
Michigan Career Education
State Department of Education
Lansing, Michigan 48902

Subject: Social Studies

Concept: Self-awareness
Career awareness

No. 5--YOUR INTERESTS FIT DIFFERENT OCCUPATIONS

RATIONALE:

Every person should recognize that several occupations will satisfy at least some of his/her interests.

OBJECTIVE:

The learner will be able to indicate ways in which three or more occupations involve three of his/her current interests so that a person with knowledge of the occupations agrees.

DESCRIPTION:

Write the following occupations on the board. Have each student list 10 of his/her interests and individual activities and the place where these would be used or needed within the following occupations (teacher may provide sample list of interests and activities):

Bankers
Musicians
Teachers
Doctors
Lawyers
Politicians
Secretaries
Ministers
Pilots
Authors
Farmers
Construction Workers

Compare the lists and, using each occupation, decide what interests would fit each career. Through the class discussion the students will note their varied interests and occupations to fit these interests. Have each student write how three or more of the occupations involve three of their interests/activities.

Personnel required: teacher

Cost: none

Time: 1 period

References: Bright Ideas for Career Education, An Arizona Activity Guide
Carolyn Warner, Superintendent
Arizona Department of Education
1535 W. Jefferson
Phoenix, Arizona 85007

Subject: Social Studies
[Interdisciplinary]

Concept: Self-awareness
Career awareness

No. 6--SIMULATED CORPORATION

RATIONALE:

Students should understand and appreciate the career implications of the academic subject matter by participation in a simulation of one aspect of the working world.

OBJECTIVES:

1. The student will be able to describe feelings associated with success/failure in three work roles, so that they are judged accurate by an incumbent of each position.
2. Given the steps for setting up a corporation, student will put them in order with 80% accuracy.

DESCRIPTION:

Students will set up a corporation, decide on a product to produce, sell stock, produce and market the product, advertise and sell the product, plan, keep records, assess need for the product, evaluate the success or failure of the corporation, dissolve the corporation, make suggestions for future corporations. Both boys and girls will participate in all areas. Each student will assume three different jobs in the simulated corporation over the course of the semester.

Personnel required: teacher(s) with knowledge of corporate operations; interdisciplinary team (possibly including a parent who is a member of the business community, to act as consultant, and/or a representative of Junior Achievement)

Cost: cost of product, printing, materials (may be negligible)

Time: one full semester

Impact on community: increased understanding of companies in community

Resources: Junior Achievement; materials for product; advertising

Impact on regular offering/curriculum goals: requires teaming of teachers and students in various subject areas

References: Career Education, How to Do It:
Creative Approaches By Local Practitioners
Office of Career Education
U.S. Office of Education
October 1974

Contributor: Mrs. Signe Aspenswall
Riverton Jr. High School
516 N. Second West
Riverton, Wyoming 82501

Subject: Foreign Language

Concept: Self-awareness
Career awareness

No. 7--FOREIGN LANGUAGE TRANSLATION CAREERS

RATIONALE:

Students should familiarize themselves with occupations requiring ability to translate a foreign language and have the opportunity to use the language in a simulated work situation.

OBJECTIVES:

1. Each student will list six situations requiring a translator (e.g., social worker interviewing client; police questioning resident as a witness or accused of a crime; intelligence officer obtaining information from foreign language newspaper; scientist reading up-to-date research in foreign language; market analysis or census in ethnic community; hospital staff communicating with a patient; foreigners touring America, either as tourists, diplomats or businesspersons; plaintiff, defendant, or witness in court; resident applying for a permit, license, or engaging in some related administrative contact with a government agency; unemployed person seeking a job).
2. Each student will write a one-page essay explaining what he/she learned from the field trip or role play.

DESCRIPTION:

1. Divide students into small groups.

2. Have each group list situations requiring a translator.

3. Have each group choose an institution where the use of translators is occasionally or regularly required (e.g., social work agency, police station, fire station, hospital, tourist agency, embassy/consulate, court, government licensing and administrative agencies, passport/visa office, department of hunting and fishing, building code department) and arrange for a field trip.

4. Option 1:

   Have each group develop a list of questions to ask, such as:

a. How often are your translation services required?
b. How much knowledge of technical language (e.g., medical terms) must you have?
c. What motivated you to enter this field?
d. Are you a full-time translator or do you have other jobs?
e. What training did you need to enter the field?
f. What would happen in the situations in which you provide translations if you were not available?
g. How many foreign languages do you speak and which ones? How important is it that a translator be fluent in more than one foreign tongue?

Have each group, after conducting the interviews, share its findings with the class and discuss and compare the answers to the questions they pose.

Option 2:

Have each group design a role play in which students take the parts of foreign language speaking persons, agency staff who most communicate with them, and translators. A sample set of role profiles for one role play is included (see below). After each role play, observing students evaluate the language skills displayed by the "translator" and the "foreign language speaking person."

Personnel required: teacher; personnel in community agencies willing to host field trips

Cost: any cost of field trips

Time: discussion and preparing questions for interviews or design for role plays, 2 or 3 periods; field trips/role plays, 2 periods; discussion and evaluation, 1 or 2 periods

Impact on community: visit to social service agency (optional)

Resources: sample role profiles (included)

Impact on regular offering/curriculum goals: increased interest; role plays provide opportunity for conversation practice

Evaluation measures: teacher will evaluate essays and participation in discussion and role plays

References: Career Education Activities for Subject Area Teachers, Grades 6 through 9, May 1975
Abt Publications, 55 Wheeler St., Cambridge, Mass. 02138

SAMPLE ROLE PLAY:

The class in this option conducts a series of role plays in which students take the parts of foreign language speaking persons, agency staff who must communicate with them, and translators. The role profiles for the exercise are developed by the students themselves either individually or in small groups. A sample set of role profiles for one role play follows.

Role Profile A - Translator. You are a professional translator who works part-time for the local city hospital when they have patients either in the emergency room or hospitalized. You translate to the doctors and nurses what foreign language patients want to communicate and, in turn, tell the patients the doctors' instructions and explanations. You have just been called into the emergency room by a doctor who is examining a foreign language patient who is apparently having difficulty explaining to the doctor what is wrong with him or her. You walk over to the patient and say, in his or her language, "I am a translator and will tell the doctor for you what your problem is. What seems to be your illness?"

Role Profile B - Doctor. You are a doctor working in the emergency room of a big city hospital. Once in a while patients come in who speak only a foreign language. When this happens, you call for the services of a translator who works in the hospital. You have just been trying to examine an emergency patient who doesn't speak English, so you have called for a translator. The translator has just walked in. You introduce him or her to the patient and wait to hear what the patient's problem is.

Role Profile C - Patient. You are a member of the city's medium-size foreign language speaking community and speak almost no English. However, this evening you began to feel very sick so you went to the city hospital emergency room. You were seen by a doctor, but had trouble explaining to him or her what the problem is. You have a sharp pain in the lower right-hand side of your stomach and feel like throwing up. You think it might be because you had a very heavy dinner and simply ate too much, but you're not sure, even though you've had a similar problem in the past--overeating and getting a very bad stomach ache. But those earlier times you never felt like throwing up. This is what makes you think it's not just indigestion. A new person has just walked into the emergency room and is coming over to you and your doctor. You wonder who he or she is.

Subject: Science

Concept: Planning and decision-making

No. 8--MAGNETICS

RATIONALE:

Students should have the opportunity to make and carry out a plan within the classroom setting.

OBJECTIVES:

1. Students will write a two-page essay on the pros and cons of listing steps in a plan before implementing it.
2. After the project, students will correctly sequence the steps in a project when given a list of steps in mixed order, with 90% accuracy.

DESCRIPTION:

1. Give the students a quick review of magnets (illustrated examples).
2. Give the students a list of long-range projects dealing with magnetics.
3. Have each student choose one project.
4. Have the students list the steps involved in implementing the project.
5. Implement the projects, complete and present to the rest of the class.
6. Have the students evaluate their own work in terms of practicality of magnetic uses and whether or not their timelines were realistic.
7. Initiate class discussion relative to benefits of developing a plan and following the plan for projects both inside and outside the school.

Personnel required: teacher

Cost: magnets, other materials

Time: preparation, 1-2 periods; project, 3-5 periods; evaluation and discussion, 1-2 periods

Resources: instructional materials, magnets, metal shavings, list of long-range magnet projects, resources on magnetics

References: Ideas for Activities
Michigan Career Education
State Department of Education
Lansing, Michigan 48902

Subject: English

Concept: Planning and
decision-making
Self-awareness

No. 9--DECISION-MAKING EXEMPLIFIED IN LITERATURE

RATIONALE:

Student should become more aware of the importance of decision-making.

OBJECTIVES:

1. Students will arrange in order the steps in the systematic decision-making model discussed in class.
2. Students will analyze either a personal decision or a decision made by a literary character by listing the steps taken in making the decision; students will write in one page how that decision followed the steps in the model, or if it didn't, how it could.

DESCRIPTION:

Read and hold a class discussion on Robert Frost's poem, "The Road Not Taken," having students express their thoughts about the importance of decision-making and talk about experiences which led them to make an important decision or to change their minds after making one. Bring out the following points in the discussion:

1. It is important that the student make a decision systematically and participate in its formulation.

2. Before making a decision, one must examine the consequences of the decision, both pro and con.

3. To do this, one must try to get accurate information about each decision.

4. Decision-making can be thought of as a series of steps: (a) set the goal; (b) figure out alternative ways of reaching the goal; (c) get accurate information to determine which alternative is best; (d) decide on an alternative and carry it out; (e) figure out if the choice was correct or not and why; and (f) if you did not reach the goal, try another alternative or start process again.

Personnel required: teacher

Cost: none

Time: one period

Resources: Robert Frost's poem, "The Road Not Taken"

References: Career Education, How to Do It,
Creative Approaches by Local Practitioners, October 1974
Compiled by Office of Career Education
U.S. Office of Education

Contributor: Mr. Robert Arceneaux
Lafayette Parish Schools
P.O. Drawer 2158
Lafayette, Louisiana 70501

Subject: Social Studies
Economics

Concept: Planning and
decision-making
Self-awareness

No. 10--VACATION PLAN

RATIONALE:

Students will develop economic awareness by using map reading skills in order to plan for efficient and satisfying use of vacation and/or travel money based on awareness and understanding of their values and goals.

OBJECTIVE:

Students will make a travel plan and budget which reflects timetables, costs, reservations, etc., associated with plan.

DESCRIPTION:

1. Teacher will tell student how much money he/she may pretend to spend on a vacation.
2. Student will use maps, brochures, magazines, timetables, fare schedules, etc., to plan a vacation.
3. Student will list time, expenditures, places of travel, routes, lodging facilities, food services, and recreational activities which will keep expenditures under the allotted amount of money.

Personnel required: teacher (might invite travel agent to critique)

Cost: none

Time: 1 period plus homework

Resources: maps, information on cost of lodging, good recreational facilities, etc., obtainable from motels, travel agents, auto clubs, etc.

References: Bright Ideas for Career Education, An Arizona Activity Guide
January 1975
Carolyn Warner, Superintendent
Arizona Department of Education
1535 W. Jefferson
Phoenix, Arizona 85007

Subject: Physical Education
Social Studies

Concept: Planning and
decision-making

No. 11--COMMUNITY RECREATION FACILITY

RATIONALE:

There is almost always a need for improvement in some community leisure/ recreation facility. One's career includes one's leisure activity, and knowledge of leisure facilities increases one's chances for having satisfying activities. Planning/deciding how to improve a community facility will increase awareness of facilities and their uses in addition to practicing planning and decision-making.

OBJECTIVES:

1. Students will execute a plan for improving some community recreation facility, based on the decision-making model.
2. Students will identify seven to ten community leisure facilities in terms of location, groups served, services, cost, hours of operation.

DESCRIPTION:

Students will discuss and list the recreation and leisure facilities available in the community. They will decide what is lacking or in need of improvement. Working in teams, they will plan what they can do to provide for that need. The plan will be carried out by the students, making revisions when necessary. The six-step decision-making model will be taught and used. The work can be done both in the community and the classroom.

Personnel required: teacher, directors of recreation facilities

Cost: depends on project chosen. Money could be obtained through the budget or raised by the students. Students should try to do something costing nothing.

Time: discussion, 1 period; planning, 2-3 periods; implementation, up to one semester

Impact on community: project would improve a recreation or leisure facility in the community; students and school would gain recognition

Resources: depends on project chosen

Evaluation measures: pre-post test on steps in decision-making model; arrange steps in order, write rationale for the steps

References: Bright Ideas for Career Education, An Arizona Activity Guide
January 1975
Carolyn Warner, Superintendent
Arizona Department of Education
1535 W. Jefferson
Phoenix, Arizona 85007

Subject: Social Studies
Geography

Concept: Planning and
decision-making
Career awareness

No. 12--CHAMBER OF COMMERCE EXERCISE

RATIONALE:

Students should be exposed to different ways in which different groups make decisions, in order to improve their own decision-making.

OBJECTIVES:

1. Students will be able to describe their part in the project to accord with teacher observation.
2. Students will list all the Republics of South America and at least one feature from the tourist bulletin for each.
3. Students will identify at least two ways in which their project activity corresponds to duties in two specific occupations.

DESCRIPTION:

During a unit on South America, divide the class into six groups. Each group will be a Chamber of Commerce for a Republic of South America. Each group can plan a tourist bulletin with articles and drawings.

1. Students will tell how their group decided who would research information, write articles, draw pictures, etc.

2. Students will describe their responsibilities in preparing the tourist bulletin and tell how they think those responsibilities were like some they might have on a job.

3. Students will answer the question, "Can you see how assuming responsibility for something in this project might help you assume responsibilities in an adult occupation?"

Personnel required: teacher

Cost: none

Time: 3 or 4 periods estimated

Resources: maps and information on South America

Impact on regular offering/curriculum goals: complement regular unit on South America; help students remember important information about the area

Evaluation measures: paper/pencil test

References: Bright Ideas for Career Education, An Arizona Activity Guide
January 1975
Carolyn Warner, Superintendent
Arizona Department of Education
1535 W. Jefferson
Phoenix, Arizona 85007

Subject: American Government
Social Studies

Concept: Planning and
decision-making
Career awareness

No. 13--CLASSROOM COURT

RATIONALE:

Students should be aware of different skills and duties exemplified in our legal system.

OBJECTIVES:

1. Each student will list at least six occupations related to the legal process and briefly describe the duties of each.
2. At the conclusion of the exercise, each student will write an evaluation of how participation affected his/her concept of decision-making (how did they decide who should be police, judge, etc.; how did they decide what sentences would fit what crimes; how did each student decide whether a given "crime" was worth risking a possible "trial" and "sentence"?).

DESCRIPTION:

Set up a court in the classroom, for a limited time, to deal with infractions of common class procedures (including homework, tardiness). The class should appoint (hire) "police" to be aware of rules and give violators "tickets" summoning them to court on a specific day. The class should elect a judge (perhaps on a rotating basis), bailiff, stenographer, and attorneys for both the class and defendants. Each student will play at least two roles related to the legal process during the court sessions. The court should be empowered to impose nominal, specific punishments for specific offenses.

Personnel required: teacher

Cost: none

Time: duration, 1 month to 1 semester; time, 1 or 2 periods for initial discussion and choosing personnel, several periods for "court sessions" as needed

Resources: information on jobs related to the legal process and on court procedures

Impact on regular offering/curriculum goals: should decrease disciplinary problems, making it easier for regular curriculum goals to be achieved

Evaluation measures: pre-post test could measure students' understanding of the legal process and knowledge of related occupations

References: Bright Ideas for Career Education, An Arizona Activity Guide
January 1975
Carolyn Warner, Superintendent
Arizona Department of Education
1535 W. Jefferson
Phoenix, Arizona 85007

Subject: Home Economics
Business Education
Industrial Education

Concept: Planning and
decision-making
Self-awareness

No. 14—TIME MANAGEMENT

RATIONALE:

Time management is an important factor in effective planning and decision-making, and self-management can be learned through effective time management.

OBJECTIVES:

1. Students will be able to describe how to use a schedule in improving time management.
2. Students will improve time management, indicated by their spending more time at what they want to do and less time in ways that they feel are not worthwhile.

DESCRIPTION:

1. Have students consider the importance of management of time; invite them to identify three things in which they could spend more time, and three things at which they spend a great deal of time that they feel are not worthwhile.

2. Have students keep a schedule of their use of time for one week, then tally up how many waking hours they spent at each activity.

3. Guide students to compare their tallies with lists (see 1.) and make a plan to adjust their allocation of time to fit in some activity they wish to do.

4. Have the students keep track of their time for another week and compare tallies to see if they have improved their time management.

Where activity occurs: classroom, home

Personnel required: teacher

Cost: none

Time: 1/2 period for initial discussion and list-making; 1 or 2 periods for discussion during project

Impact on regular offering/curriculum goals: may transfer to better time management in other classes

Evaluation measures: compare time tallies to ascertain whether students have improved their time management

References: Hawaii Career Development Continuum, Curriculum Guide for Grades 10 through 12, June 1974
U.S. Office of Education

Subject: Geography
Health

Concept: Planning and
decision-making
Career awareness

No. 15--GEOGRAPHY, WEATHER AND JOBS

RATIONALE:

Students should be familiar with career opportunities relating to geography and understand how geography may be a factor that influences certain decisions.

OBJECTIVES:

1. Students will list three types of jobs directly related to the geography of their area, the requirements for the job, and construct a plan to follow for gaining entry into each job.
2. After studying weather, students will state how their clothes, transportation, and leisure activities are dependent on the weather.

DESCRIPTION:

1. Study various parts of the U.S. in terms of geography and list various jobs directly related to geography. Examples:
    a. Farming (wheat, citrus, etc.)
    b. Forestry (mountain ranges)
    c. Conservationist (swamps)
    d. Miner (natural resources)
    e. Irrigation expert (rainfall, rivers)

2. Study geography in community area; research jobs directly related to community geography. Study types of training and requirements for jobs. Map out a plan to achieve this. Discuss reasons for considering these jobs and careers while still in school.

3. Study the weather for the community, relate it to other parts of the U.S. Discuss how weather affects clothing, means of transportation, and leisure activities.

4. Students can make a chart showing proper clothes and activities for different weather.

Personnel required: teacher

Cost: none

Time: discussion, jobs, plan - 2 periods; weather - 1-2 periods

Resources: weather charts, geographical maps, occupational information

Evaluation measures: paper/pencil test

References: Ideas for Activities
Michigan Career Education
State Department of Education
Lansing, Michigan 48902

Subject: Math

Concept: Planning and
decision-making
Career awareness

No. 16--RESPONSIBILITY OF BUILDERS

RATIONALE:

Students should understand how their coursework relates to the world of work and should be aware of the interdependence of jobs and the necessity for people to consult together in solving problems.

OBJECTIVES:

1. Students will list 10 jobs necessary for the completion of a structure.
2. Students will solve 20 math problems related to the building industry.
3. Students will write a brief essay explaining the interdependence of jobs and/or the uses of math in the jobs discussed in class.

DESCRIPTION:

1. Discuss the relationship and interdependence of jobs related to building a house and the importance of doing a job right.

2. Solve math problems involving building.

3. Role play: assign each student an occupation. Let one person be the contractor who is going to subcontract the building of the house. Introduce the problems of loans and money, weather, time limits, strikes or sicknesses, accidents, inspection, utilities, etc. Show how people working together can overcome these problems. Role play notifying people in case of sickness, bad weather, materials unavailable, etc.

Personnel required: teacher

Cost: none

Time: discussion and researching jobs, 1 period; math problems, 1 period (or homework); role play, 1 or 2 periods; essay, 1 period (or homework)

Resources:

A. Books
   1. Careers In Mathematics: Industry and the Trades, Houghton Mifflin Company, 2 Park Street, Boston, Mass. 02107 (RESA V Career Education Project #213)
   2. Succeeding in the World of Work, McKnight Publishing Company, Bloomington, Ill. 61701 (RESA V Career Education Project #105)

B. Pamphlet
   "Jobs in Building Construction Trades," SRA Job Family Series, Science Research Associates, Inc., 259 E. Erie Street, Chicago, Illinois 60611 (RESA V Career Education Project #151)

Impact on regular offering/curriculum goals: should complement and increase interest in regular curriculum goals by improving understanding of how math will be used in a work situation

Evaluation measures: paper/pencil test of math problems; teacher will evaluate students' research on jobs, essays, and participation in role play and discussion

References: Career Education Curriculum Materials Resource Guide
April 1975
Region V, West Virginia
Regional Education Service Agency
1210 Thirteenth Street
Parkersburg, West Virginia

Subject: Health/Science

Concept: Planning and
decision-making
Self-awareness
Career awareness

No. 17—SMOKING

RATIONALE:

Students should have knowledge of the effects of smoking on the smoker and on others; they should be aware of individual and group rights and the consequences of the individual's or group's actions.

OBJECTIVES:

1. Each student will name three effects of smoking from the material covered in class.
2. Students will describe in a one-page essay their feelings, either as a non-smoker among smokers or as a smoker among non-smokers.

DESCRIPTION:

1. Give a presentation (lecture and movie and/or guest speaker) on the scientific effects of smoking. Conduct a filtering experiment with a vacuum pump and burning cigarettes.

2. Use current literature and research as discussion material for effects on nearby non-smoker.

3. Have class develop proposed legislation to control/prohibit smoking. Attempt to reach a class consensus on this. Perhaps have a structured debate.

4. A city councilperson or state legislator could be invited to discuss the future of such legislation.

5. Summarize by discussing the importance of considering individual and group implications before taking actions.

Personnel required: teacher, guest speaker(s)

Cost: possibly for film, experiment material

Time: presentation and experiment, 1-2 periods; discussion, 1 period; debate/legislation, 1-2 periods; summary, 1 period

Impact on community: increased student awareness of smoking effects and laws

Resources: material for filtering experiment, movie/film, guest speaker(s)

Impact on regular offering/curriculum goals: may call for some modification

Evaluation measures: teacher will evaluate students' participation; paper/pencil test on effects of smoking, rights of others

References: Ideas for Activities
Michigan Career Education
State Department of Education
Lansing, Michigan 48902

Subject: Art/Social Studies

Concept: Career awareness

No. 18--CAREER AWARENESS THROUGH CARICATURE

RATIONALE:

Students should be familiar with careers in many fields.

OBJECTIVES:

1. Each student will do research on a particular job assigned. Student will be able to describe duties, conditions, wages, method of entry and requirements for the assigned job.
2. Each student will draw a caricature of someone working on that job.

DESCRIPTION:

1. Assign a particular job to each student in the class to research.

2. After research, have students draw a caricature of someone working at that job.

3. Display caricatures and discuss what information was most useful for facilitating the drawing. In the discussion, bring out how well they must know what they are drawing before they pick up their materials and start; point out that, to be good, the drawing must be instantly recognizable by almost anyone.

Personnel required: teacher

Cost: none

Time: 1 period for initial discussion and assigning jobs; 1 period for research; 1 period for drawing caricatures; possibly 1 period for exhibiting caricatures and further discussion

Impact on community: caricatures might be used for a display

Resources: information on jobs

References: Bright Ideas for Career Education, An Arizona Activity Guide
Carolyn Warner, Superintendent
Arizona Department of Education
1535 W. Jefferson
Phoenix, AZ 85007

Subject: Math/Economics

Concept: Career awareness
Self-awareness

No. 19--DOES NUMBER 2 REALLY TRY HARDER?

RATIONALE:

Students should have an understanding of how to measure people's opinions and preferences and what part the results play in determining production of society.

OBJECTIVES:

1. Students will identify three implications of public opinion on production, including amount of product available in store, company profit, recognition of product by households surveyed, etc.
2. Students will describe in one paragraph whether they liked or disliked their role as researchers and the reasons why.

DESCRIPTION:

1. Assist students to identify five survey questions, each one designed such as the following:

   Which laundry product do you prefer?

   a. Tide
   b. Cheer
   c. Fab
   d. Oxydol
   e. Other ____________________

   Use vegetables, dairy products, sporting equipment, entertainment, etc., for the other questions.

2. Have each student survey ten households, being sure to keep addresses, or to work only in an assigned area in one evening.

3. Remove duplicate data (if any) by using addresses.

4. Have students tabulate data.

5. Have students divide into groups (five) or individually calculate:

    mean
    mode
    median
    range
    standard deviation (optional)

6. Have students graph results using a histogram.

7. Share results, discuss implications for products (first, second, and last in each category)

8. Discuss the effects this might have on jobs in various cities where products are made.

9. Summarize by reviewing purposes of activity, including students' role as researchers. How did they like it?

Personnel required: teacher

Cost: none

Time: questions, 1 period; tabulation and calculation, 1 period; discussion, 1 period

Impact on community: students survey households in the community

References: Ideas for Activities
Michigan Career Education
State Department of Education
Lansing, Michigan 48902

Subject: Math

Concept: Career awareness

No. 20--FOLLOW-UP OF GRADUATES

RATIONALE:

Students should have the opportunity to know what happens to the graduates of their high school, in order to learn more about individual differences in training needs.

OBJECTIVE:

Each student will predict where he/she will be in two years, five years, and 10 years in a 3-page essay, in terms of job, education, living situation (where living, leisure activities), and the student will indicate why his future will be the same or different from that of past graduates.

DESCRIPTION:

Using the counselor as a resource, obtain figures on what has happened to graduates for the last three (five, ten, etc.) years. Tabulate figures and make a bar graph which indicates percentages for the following:

1. Going to 4-year colleges
2. 2-year colleges
3. technical schools
4. job training programs
5. armed services
6. marriage and house work, etc.
7. leisure activities
8. city of residence

Discuss meaning of figures. Compare with other classes, area schools, expectations of present students, etc.

Personnel required: teacher, counselor

Cost: none

Time: 1 or 2 periods

Resources: counselor's records of graduates; graph paper

References: Ideas for Activities
Michigan Career Education
State Department of Education
Lansing, Michigan 48902

Subject: Government
Social Studies

Concept: Career awareness

No. 21--HOW ECONOMIC AND POLITICAL FORCES CHANGE EMPLOYMENT OPPORTUNITIES

RATIONALE:

Students should recognize and understand that economic and political forces cause changes in employment opportunities.

OBJECTIVE:

Given a list of current employment opportunities and a list of employment opportunities for 1960, students will identify changes and will provide a satisfactory explanation of the relationships of these changes to economic and/or political forces.

DESCRIPTION:

1. Poll the class to determine how many are currently employed as movie ushers/usherettes or newspaper delivery persons.

2. Point out to class that 25 years ago these two occupations were among the most common high school jobs.

3. Discuss the reasons for the decline in these two occupations.

    a. Closing of thousands of neighborhood theatres.
    b. Advent of the drive-in movie after World War II.
    c. Advent of commercial entertainment on T.V. after 1950.
    d. Demise of many metropolitan newspapers and free-delivery advertisers.
    e. Advent of T.V. news coverage after 1950.
    f. Replacement of corner newspaper salespersons by coin-operated stands.
    g. Consolidation of small bicycle newspaper routes into large auto and truck delivery routes.

4. Discuss other occupational changes caused by changes in the delivery of entertainment and news.

5. Invite representatives of local newspapers and T.V. stations to discuss the future of their respective industries.

6. An occupational category which was not popular 25 years ago among high school students was waitress and waiter at fast-service food chains (McDonalds, Jack-in-the-Box, Kentucky Fried Chicken, etc.). Today this industry hires many young people. Discuss the societal changes which have taken place in the last quarter-century which have caused this occupational shift.

7. Discuss businesses which may have suffered because of this shift. Bank of America has recently published an excellent analysis of the fast-food service industry in California and the U.S. This report reveals, among other things, that Americans eat out one of every three meals. (See Small Business Reporter, Vol. 12, No. 8, published by B of A.)

8. Have each student make a tentative occupational choice, and after reading selected chapters or sub-chapters from the books listed under "resources," predict how his/her tentative choice may change. To determine whether or not a strategy has been successful, a criterion measure will need to be administered. Following the conditions specified in the objective, the staff would need to prepare two lists of employment opportunities: one for 1960 and one for 1977. The criterion measure might read as follows: "Attached are two lists of employment opportunities, one for 1960 and one for the current year. You are to identify occupations that appear in one list and not in the other, and to explain the relationship of these changes to economic and/or political forces. Present your evidence in outline form."

Personnel required: teacher, representatives of local newspapers and T.V. stations

Cost: none

Time: about 3 periods

Impact on community: greater student understanding of changes in employment

Resources:

The Coming of the Post Industrial Society, Daniel Bell, Basic Books, Inc., New York, 1973

Resources (continued):

Future Shock, Alvin Toffler, Random House, New York, 1970.

The Information Machines, Ben Bagdikian, Harper (Colophon Books), 1971.

The Next Ninety Years, Proceedings of a Conference sponsored by California Institute of Technology, 1967.

The Future of the Future, John McHale, Balantine Books, New York, 1969.

At the Edge of History, Wm. Thompson, Harper (Colophon Books), New York, 1971.

Here Comes Tomorrow, Staff of the Wall Street Journal, Dow Jones Books, Princeton, N.J., 1967

Evaluation measures: success criterion: teacher judgment as to the accuracy of the student's observations; at least one of the economic or political forces cited for each change should be a major force.

References: "A Program Planning Model for Developing a Career Guidance Curriculum," California State Department of Education, 1976

Subject: Science/Health

Concept: Career awareness

No. 22--PUBLIC HEALTH

RATIONALE:

Students should have the opportunity to understand the necessity for the creation of public health departments and the many health career opportunities therein; also to recognize what personal traits might be necessary to pursue each, and for the student to recognize settings and experiences that provide knowledge of self and others.

OBJECTIVES:

1. On a written test, students will demonstrate knowledge of communicable diseases and their control (immunization).
2. Students will name and describe four reasons for having public health facilities as covered in class.
3. Students will describe something they learned about themselves from this exercise.

DESCRIPTION:

1. Explore the world of communicable diseases and the phenomena of immunity through films, independent study, speakers, reports.

2. Field trip to hospital/public health facility to talk to various health workers (dietician, lab technician, hospital social worker, physical therapist, emergency room attendant, etc.)

3. Students write a paper discussing the value of one of the jobs and their beliefs about the satisfactions the job offers.

Personnel required: teacher

Cost: possibly films

Time: 4 periods

Impact on community: students would have a better understanding of the need for and services offered by community public health facilities.

Resources: films, literature on health careers, field trip resources, speakers

Evaluation measures: written test, evaluation of student paper

References: Ideas for Activities
Michigan Career Education
State Department of Education
Lansing, Michigan 48902

Subject: Business Education
Social Studies

Concept: Career awareness

No. 23--SERVICE AND PRODUCT INDUSTRIES

RATIONALE:

Students should recognize differences in satisfactions from service and production work.

OBJECTIVES:

1. Students will list six interests satisfied in the work setting.
2. Students will correctly differentiate service and product industries in terms of what is produced, workers employed, setting, funding, and rewards.
3. Students will list three pro and three con arguments for the debate topic.

DESCRIPTION:

Students will choose three areas of career interest; they will obtain information on service-related and product-related industries in their three areas. Students will participate in a debate on the rewards and challenges of service-related versus product-related industries in their areas of interest. "Resolved: service-oriented industries offer greater rewards and challenges than product-oriented industries." The debate can bring out not only financial rewards, but psychological and status reinforcement as well. There are two debate teams, one pro and one con. The rest of the class is the audience, and will vote at the end of the debate on who "won." Each team should have one period preparation time. Class members who are not on a team for this debate can be team members for other debates. Each team will present its position for 10 minutes, then present a 5-minute rebuttal. Finally the audience votes for the "winner."

Personnel required: teacher

Cost: none

Time: 2 periods for discussion, research, and preparation; 2 periods for debates

Resources: information on service-oriented and product-oriented industries

References: Bright Ideas for Career Education, An Arizona Activity Guide
Carolyn Warner, Superintendent
Arizona Department of Education
1535 W. Jefferson
Phoenix, Arizona 85007

Subject: English

Concept: Career awareness

No. 24--EVERY JOB HAS PLUSES AND MINUSES

RATIONALE:

Students should understand that all occupations have advantages and disadvantages, that these are related to individual values, and that they should be taken into consideration when choosing a career.

OBJECTIVE:

Students will list three advantages/disadvantages for a given job, after writing to and receiving a response from a person on that job.

DESCRIPTION:

1. Hold a class discussion in which students brainstorm and then decide on a list of job advantages and disadvantages. Discuss how these advantages and disadvantages might be a factor in choosing a career.
2. Have students write to an individual they know requesting information about his/her job's advantages and disadvantages. To facilitate a high response rate, encourage inclusion of self-addressed envelopes. (A direct interview if possible might be an alternative to a letter.)
3. After about two weeks, when most responses have returned, have students share the response letters in class. Have each student share his findings in a 3-5 minute presentation.

Personnel required: teacher

Cost: none

Time: 1 period

References: Bright Ideas for Career Education, An Arizona Activity Guide
Carolyn Warner, Superintendent
Arizona Department of Education
1535 W. Jefferson
Phoenix, Arizona 85007

Subject: Math

Concept: Career awareness

No. 25--A DAY WITHOUT NUMBERS

RATIONALE:

Students should be aware of how their coursework relates to everyday life.

OBJECTIVES:

1. Following the exercise, students will give three substantive arguments for the importance of math.
2. Students will list two problems encountered in attempting to avoid using any math or numbers for one day.

DESCRIPTION:

Students can find the extent to which math is used in our everyday life by attempting to avoid using any math or mathematical concepts in conversation, school work, or at home, for an entire day. For example, have no clock, no page numbers, etc. The following day have a discussion of the problems that came up and the importance of math and numbers.

Personnel required: teacher

Cost: none

Time: 1/2 period for explanation, description, and plan; 1 period for discussion

References: Bright Ideas for Career Education, An Arizona Activity Guide
Carolyn Warner, Superintendent
Arizona Department of Education
1535 W. Jefferson
Phoenix, Arizona 85007

Subject: English

Concept: Career awareness

No. 26--NEW JOB OPPORTUNITIES FOR WOMEN

RATIONALE:

Students should become more aware of increased occupational opportunities open to women.

OBJECTIVES:

1. After two periods of research and discussion, students will list and describe three jobs which have recently started admitting women.
2. Students will spell and define each new vocabulary word related to women's or men's traditional occupations, with 80% accuracy after one week of study.

DESCRIPTION:

Students will read about job opportunities for women, with the assistance of the librarian or career center coordinator; each student will choose two or more fields of interest. Each student will write a summary or outline of the information obtained relative to the occupations of interest. Each student will keep a list of vocabulary related to the occupations researched, and will contribute at least two words related to non-traditional occupations for women.

Where activity occurs: library or career center, classroom

Personnel required: teacher, librarian or career center coordinator

Cost: none

Time: 3 periods

Resources: information on non-traditional jobs for women

Results which are claimed/proven: contributor indicates exercise increased interest in reading biographies; students should also become more aware of how English skills relate to the job world

References: Career Education, How to Do It: Creative Approaches by Local Practitioners, October 1974
Compiled by the Office of Career Education
U.S. Office of Education

Contributor: Christine Seago
Lufkin Independent School District
P.O. Drawer 1407
Lufkin, Texas 75901

Subject: Art
American History
Geography
Social Studies

Concept: Career awareness

No. 27--CAREER TOTEM

RATIONALE:

Teachers should devise and/or locate methods and materials designed to help students understand and appreciate the career implications of the subject being taught. The totem has more impact than a regular bulletin board.

OBJECTIVE:

Each student will identify five occupations related to the course as depicted on the totem.

DESCRIPTION:

The "Career Totem" is a tall 3D bulletin board constructed from boxes covered with bulletin board paper. News items and pictures that illustrate various career possibilities in the subject are put on it and used to stimulate discussion and reports. It can be moved around. This totem should help increase students' awareness of careers in the subject area. In an American History course, occupations and history of Native American Indians would be especially appropriate for expression on the totem.

Personnel required: teacher

Cost: probably none (for boxes, paper, stories and pictures) beyond the regular class budget

Time: this is an ongoing project throughout the semester; about one day a week may be used for discussions/reports; items may be contributed at any time

Impact on community: may stimulate student interest in jobs related to the subject; possibly art students could paint a mural somewhere in the community

Resources: news items and pictures on careers (from newspapers, magazines, etc.). Materials: boxes (cardboard or wood), bulletin board paper, tape, glue

Impact on regular offering/curriculum goals: shift some emphasis to careers in the field

Evaluation measures: pretest on careers in the field, posttest at end of semester

References: Career Education, How to Do It: Creative Approaches by Local Practitioners, October 1974
Compiled by Office of Career Education
U.S. Office of Education

Contributor: Ms. Eileen Scott
Riverside Jr. High School
Watertown, Wisconsin 53094

Subject: Social Studies

Concept: Career awareness

No. 28--EVERY JOB CONTRIBUTES

RATIONALE:

Students should recognize that even the most menial jobs contribute to society.

OBJECTIVE:

Students will specify three commonly recognized social benefits provided by jobs which their peers regard as among the least prestigious.

DESCRIPTION:

1. Have each student write down five jobs which appear unimportant, and compile these.
2. Guide the class in brainstorming ways in which each of the apparently unimportant jobs makes important contributions.
3. Ask the class to indicate ways by which each job might be eliminated (machine, computer, reorganization of work) and what would lead to the elimination of the job.
4. Ask the class to discuss why people take the particular jobs and whether students (or workers) in a different area would judge the same jobs as unimportant.
5. Form teams to debate the pros and cons of the proposition: "It is appropriate to advise a person to take an unimportant job." Form as many teams as time permits, each debating a different job on the list.

Personnel required: teacher

Cost: none

Time: 1 period for preliminary discussion, listing jobs, and compiling; 1 period for debate research; 1 period for debates

Impact on community: students should have greater appreciation of jobs previously thought of as low in value

Resources: information on jobs

References: Bright Ideas for Career Education, An Arizona Activity Guide
Carolyn Warner, Superintendent
Arizona Department of Education
1535 W. Jefferson
Phoenix, Arizona 85007

Subject: Math/Business

Concept: Career awareness

No. 29--BUDGET REFLECTS YOUR OCCUPATION

RATIONALE:

Students should have an understanding of the economic implications of various occupations, in order to develop a basis for economic efficiency as producers and consumers of goods and services. They should develop appreciation for the value and worth of work and the contributions of occupations to society and the economy, and should understand that work means different things to different people.

OBJECTIVES:

1. Students will describe in writing how police differ from physicians in terms of salary, hours of work, type of leisure, age of job entry, and education.
2. After the lesson, students will write in one page, how different careers dictate different lifestyles in terms of salary, hours, leisure, age of entry, and education.

DESCRIPTION:

1. Discuss relationship of financial planning to careers, in terms of training, salary, and hours; and compare the lifestyle of a government-employed law enforcement officer and a self-employed physician according to these criteria.

2. View films (see Resources) recommended by Hawaii, or similar films.

3. Have students select three careers in which they are interested and research starting salaries by consulting two sources: printed media and people in the occupations. Compare salary ranges in different geographic locations.

4. Make a monthly budget for a physician and a police officer, based on salary. (This can measure achievement of Objective 2.)

5. Share findings with classmates in a 3-5 minute report.

Where activity occurs: classroom, library; interviewing of workers in community desirable

Personnel required: teacher, projectionist

Cost: cost of films

Time: discussion, 1/2 period; films, 1 period; research and write-up, 2-3 periods

Resources: films ("Earning Your Money," "Making Money Work for You," McGraw Hill; "Personal Values vs. Salary" by E. Tando), audiovisual equipment and operators, Occupational Outlook Handbook, other occupational literature; directory of local people in different occupations (optional)

Evaluation measures: oral or written test; list economic implications of work; assess feasibility/accuracy of budget

References: Hawaii Career Development Continuum, Curriculum Guide for Grades 10 through 12, Hawaii, June 1974

Subject: Math/English
Social Studies

Concept: Career awareness

No. 30—EDUCATION AND INCOME

RATIONALE:

Students should explore from a financial standpoint the advantages and disadvantages of different levels of education.

OBJECTIVES:

1. Students will contrast eight occupations in terms of their amount of training required and cost of that training, and their average income.
2. Students will write a 1-page comparison of two jobs (one of which requires a college degree and one of which doesn't) in terms of finances, leisure time, age at which work force is entered, and perceived satisfaction.

DESCRIPTION:

1. Have students research the average cost of education for occupations such as doctor, lawyer, teacher, manager, minister, plumber, lab technician, beautician, business person, truck driver, maintenance worker.

2. Have students research the average yearly income of these careers.

3. Have students prepare interview questions and interview persons in the work force about the cost of their training, their income, and their thoughts about how education affects income.

4. Discuss findings in class; discuss the merits of various careers and draw conclusions about the relationship of education and income.

Personnel required: teacher

Cost: none

Time: 3 periods

Impact on community: each student will interview a community member

Resources: occupational information

Evaluation measures: teacher subjective evaluation of students' participation in discussion; written test

References: Ideas for Activities
Michigan Career Education
State Department of Education
Lansing, Michigan 48902

Subject: Language Arts

Concept: Career awareness
Self-awareness

No. 31—NEWSPAPER JOB REQUIREMENTS AND REWARDS

RATIONALE:

Students should be able to evaluate themselves as unique individuals who possess varying degrees of negative and positive attributes for different newspaper jobs.

OBJECTIVES:

1. Students will identify five careers related to the newspaper (reporter, proofreader, printer, layout artist, sports writer, press operator, etc.)
2. Students will discuss (orally or in writing) the contribution that newspaper workers make to society.
3. Students will describe the "satisfiers" of various newspaper careers; e.g., physical, creative, financial, etc.

DESCRIPTION:

1. Discuss need for a worker to understand himself/herself, his/her job, and his/her employer's rules, regulations, policies and procedures.

2. Discuss value of newspaper work and how it helps to contribute to the welfare of others and society.

3. Invite representatives of each department of the newspaper to the classroom. They will discuss the skills, requirements, advantages, and disadvantages of their jobs. (The school cafeteria might be used for setting up "departments.")

4. Each student will select three "departments" of interest.

5. Each student will develop and prepare an interview sheet.

6. Student will visit each "department" to interview the resource person.

7. Student will share findings and impressions about jobs studied and contrast these with classmates' impressions.

8. Every student will write/describe his/her own strengths and weaknesses for the three occupations studied, citing feedback from grades, other teacher feedback, and extracurricular experiences to support the strengths and weaknesses.

Personnel required: teacher, representatives from newspaper

Cost: none

Time: discussion and preparation for interviews, 2 periods; interviews, 1 period; discussion and evaluation, 1 or 2 periods

Resources: "Questions" (see below)

Evaluation measures: teacher will evaluate the student on his/her interest and contribution to the discussion. A subjective evaluation will also be given on the student's ability to interview the resource person. A paper/pencil test may be given covering items listed under "Objectives."

References: Career Education Curriculum Materials Resource Guide
Region V, West Virginia, April 1975
Regional Education Service Agency
1210 Thirteenth Street
Parkersburg, West Virginia

SUGGESTED QUESTIONS FOR NEWSPAPER RESOURCE PERSONS:

NEWSROOM:
1. What are the duties of reporters, proofreaders, and editors?
2. How do the UPI machines work?
3. What are the qualifications of workers?
4. Why are there mistakes in the paper since you have proofreaders?
5. Who decides which articles go on what page?

ADVERTISING:
1. What are the duties of a salesman?
2. Are salesmen on commission?
3. What kinds of decisions are involved in laying out ads?

COMPOSING ROOM:

1. What is the difference between the old and new systems?
2. What advantages and disadvantages does the new system offer?
3. Would you explain the apprenticeship program?
4. What are the chances for advancement?

PRESS ROOM:

1. What training is required for a press operator?
2. What mechanics are involved in operating the press?
3. What are the advantages and disadvantages of the job?

QUESTIONS TO ASK ALL RESOURCE PERSONS:

1. What are the educational requirements of your work?
2. What do you like about your work?
3. What do you dislike about your work?
4. How are leisure activities related to your work?
5. What kind of prior work experience is necessary or helpful for the job you hold?
6. Give examples of how you use school subjects in your work.
7. If you could start over, would you pursue the same career? (If not, what?)

Subject: Science

Concept: Career awareness

No. 32--TRADITIONAL AND EMERGING OCCUPATIONS RELATED TO THE ENVIRONMENT

RATIONALE:

Students should be aware of traditional and emerging occupations related to the environment.

OBJECTIVES:

1. Students will identify five major environmental problems.
2. Students will discuss the seriousness of the threat to our lives posed by each environmental problem they identified.
3. Students will list five agencies and ten jobs related to the environment. (Related jobs include: landscape architect, gardener, nursery manager, retail florist, tree surgeon, truck farmer, fruit grower, floriculturist, horticulturist, botanist, plant pathologist, hydrologist, agronomist, soil conservationist, forest ranger, park service worker, tobacco farmer.)

DESCRIPTION:

1. Show film, "The House of Man--Our Changing Environment."

2. Discuss problems of the environment. Each individual is responsible for the condition of the environment. The need is present to repair the damage to the air, water, soils, plants, and animals.

3. Gather information on agencies and jobs related to the environment.

4. Show filmstrip, "Occupations in the Environment."

5. Gather pictures and newspaper articles pertinent to their community for the bulletin board.

Personnel required: teacher, projectionist

Cost: cost of films

Time: 3 periods for films and discussion; occasional brief discussions over the semester

Impact on community: students will be aware of environmental problems in their own community

Evaluation measures: teacher will evaluate the student through discussion and materials brought in for the bulletin board; paper/pencil test may cover objectives 1 and 3

Resources:

A. Books
   1. Careers in Conservation: Opportunities in Natural Resources, Henry E. Clepper, Ronald Press Co., 79 Madison Ave., New York, N.Y. 10016.
   2. Career Education in the Environment, Olympus Research Corp., 818 - 18th Street, N.W., Washington, D.C. 20006.
   3. Occupational Outlook Handbook, U.S. Department of Labor, Bureau of Labor Statistics, 341 Ninth Ave., New York, N.Y. 10001, 1972.
   4. Career Encyclopedias, J.G. Furgeson and Co., 6 North Michigan Ave., Chicago, Illinois 60602, 1972.

B. Magazine
   "Careers 'Doing Something' for the Environment," Changing Times.

C. Film
   "House of Man, The--Our Changing Environment," Encyclopedia Britannica Educational Corp., 425 North Michigan Ave., Chicago, Ill. 60611 (RESA V Film Library MP291)

D. Filmstrip
   "Overview--Occupations in Ecology," Society for Visual Education, 1345 Diversey Parkway, Chicago, Ill. 60614 (RESA V--Career Education Project #142.)

E. Pamphlets
   1. Career Opportunities in Biology, Russell B. Stevens, National Academy of Sciences
   2. Careers in Soil and Water Conservation, Soil Conservation Society of America.

F. Kit
   "Popeye Environmental Careers," King Features, 235 East 45th Street, New York, N.Y. 10017 (RESA V--Career Education Project #72).

References: Career Education Curriculum Materials Resource Guide
April 1975
Region V, West Virginia
Regional Education Service Agency
1210 Thirteenth Street
Parkersburg, West Virginia

CAREER CADRE

MASTER PLAN
FOR
DEVELOPING A CAREER EDUCATION INFUSION
INSERVICE

Planning Guidelines: The following guidelines are intended to help Career Cadre develop their team's local infusion inservice plan.

Guideline 1. On the next several pages you will find forms and criteria for developing what is often referred to as a Management and Operations Plan (M&O Plan). Each Cadre team member can complete these forms individually, but the team as a unit will complete a larger model of the individual forms, referred to as a Career Cadre Master Plan.

Project Cadre staff will evaluate the content and implementation of each team's Master Plan in accordance with project objectives.

Guideline 2. The M&O Plan consists of five management steps:

Step 1. Assess the learning needs of students/teachers

Step 2. Convert teacher inservice needs into statements of learner performance objectives

Step 3. Plan an inservice program

Step 4. Implement the inservice program

Step 5. Evaluate the program

Below the title of each step you will find a list of concepts considered important to the completion of the step.

Guideline 3. Below each management step and list of concepts, you will see the heading, Operations Plan, and four columns labeled What, Who, How, and When.

What refers to the sequence of actions or operations which must be completed in order to complete the management step.

Who refers to the individual who is responsible either for completing the operations or for managing the activities needed to complete the operation.

How refers to the relatively specific activities which must be carried out in order to complete the operation.

When refers to the date by which each operation should be completed so that subsequent operations can be carried out.

For each management step the plan has space for 15 operations—each step may need fewer or more operations—or provision for a total of 75 operations. These 75 operational steps are numbered sequentially from 010 to 750. In some cases you may want to identify substeps for the completion of an operation, and such substeps can be easily numbered as shown for Operation 020 under Management Step 1.

Guideline 4. On the individual planning forms you will find that a number of operations for each management step have been identified for you. These operations are considered fundamental to the completion of a comprehensive training program. Some may be omitted from career cadre inservice plans, depending on situational factors.

These operations do not appear on the larger-scale team Master Plans. When the team reaches consensus as to the sequence of operations the team intends to complete, the team can list the operations on the Master Plan.

Guideline 5. The recommended procedures for each team's completion of the Master Plan are as follow:

1. Review the structure and format of the plan.

2. Begin at Step 1 by discussing the concepts listed for the step.

3. Start to plan by asking each team member to review the operations listed for the step. Based on the team's discussion of the concepts and operations listed in relation to local situational factors (feasibility, scope, resources, etc.), each member can add, delete, or modify the given operations and arrive at a sequence of operations he/she finds most satisfactory.

4. Discuss the individual lists of operations and obtain team consensus as to what operations should be listed on the Master Plan and in what order. List these operations on the Master Plan.

5. Fill in the Who, How, and When columns according to whatever method is most efficient and agreeable to each planning team.

   It is recommended the timeline, or When column, not be completed until the complete sequence of operations for a management step has been identified and assigned to a team member for management responsibility.

6. Some operations may be completed by the planning team during the Project Cadre workshop. The team should circle the number of any operation completed, and record as precisely as possible the result of the operation in the How column.

The Master Plan will be elaborated continuously throughout the four-day Project Cadre workshop. Project Cadre staff will be available for discussion and feedback to all Career Cadre planning teams.

During the follow-up phase of its project, Project Cadre intends to study to what extent the planning teams were able to implement the Master Plan in the local school or district.

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Desired Outcomes of Planning

As a result of developing a comprehensive Master Plan for career education infusion inservice, each career cadre planning team should have identified:

a. a list of student learning needs and a list of teacher training needs in relation to career education infusion

b. a list of career education infusion inservice performance objectives, or relatively specific statements of what teachers will know or be able to do as a result of inservice

c. a list of materials and methods for accomplishing each of the inservice's intended outcomes

d. a well-defined set of procedures for conducting the inservice

e. the results of the inservice, described in terms of what teachers know or can do in relation to the expected outcomes

f. an evaluation report of the inservice's effectiveness.

Step 1: Assess the Learning Needs of Students-Teachers

Planning Concepts

Target Populations

Student Learning Needs

The Should

The Is

The Is-Should of Teacher Inservice Needs

The Is-Should Discrepancy

Sampling

Instrumentation

Data Collection Procedures

Data Analysis

Inservice Training Needs

OPERATIONS PLAN

What	Who	How	When
010 Define the target populations for inservice			
020 Involve interested publics			
021 Identify interested publics			
022 Contact interested publics			

	What	Who	How	When
030	Determine what target groups should know or what skills they should have			
031	Determine self-awareness should			
032	Determine planning and decision-making should			
033	Determine career awareness should			
040	Develop needs assessment instrumentation			
050	Develop needs assessment procedures			
060	Determine the Is			
070	Identify Is-Should discrepancies			
080				
090				
100				
110				
120				
130				
140	List teacher inservice needs			
150	Prioritize teacher training needs			

Step 2: Convert Teacher Inservice Needs into Statements of Learner Performance Objectives

Planning Concepts

Measurable Objectives

Conditions of Evaluation

Criteria of Evaluation

Range of Behaviors

Outcomes vs. Activities

Simple-to-Complex Continuum

Summary Objectives

Priorities

OPERATIONS PLAN

What	Who	How	When
160 Convert needs to desired competencies			
161 Student needs			
162 Teacher needs			
170 Develop a set of inservice learner objectives			
180 Check learner objectives for criteria of evaluation			

	What	Who	How	When
190				
200	Identify which target group should accomplish each objective			
210				
220	Arrange learner objectives from the simple to the complex			
230				
240				
250				
260				
270				
280				
290				
300	Establish priorities for the objectives			

Step 3: Plan an Inservice Program

Planning Concepts

Objectives-Based Instruction

Targeting Materials

Selection of Materials

Development of Materials

Methodology

Multiple Methods

Roles

Transportable

Replicability

OPERATIONS PLAN

What	Who	How	When
310 Identify instructional materials needed for inservice training			
311 Cadre materials			
312			
320 Collect existing materials which can be targeted towards each learner objective			

	What	Who	How	When
330	Examine-correlate materials and objectives			
340	Select training materials			
350	Develop training materials needed			
	351			
	352			
	353			
360	Elaborate inservice methods			
370	Identify inservice roles			
380	Recruit inservice staff			
390	Train inservice staff			
400	Establish replicability of materials-methods			
410	Revise materials-methods as needed			
420				
430				
440				
450	Package materials and methods			

Step 4: Implement the Inservice Program

Planning Concepts

Types of Inservice

Recruitment of Participants

Time and Site

Necessary Approvals

Staff Development

Material Production

Operating Procedures

OPERATIONS PLAN

What	Who	How	When
460 Determine type and scope of inservice			
470 Identify the participants			
480 Secure time and site for inservice			
490 Obtain necessary approvals			
491			
492			
493			

	What	Who	How	When
500	Inform participants			
510	Produce materials			
	511			
	512			
	513			
520	Specify delivery procedures			
530	Tryout inservice program			
540	Revise materials-methods-delivery procedures as needed			
550				
560				
570				
580				
590				
600	Conduct the inservice			

Step 5: Evaluate the Program

Planning Concepts

Evaluation Questions
Standards of Success
Criterion-Referenced Assessment
Measures of Success
Validity
Data Collection
Data Analysis
Summary of Results
Evaluative Decisions
The Report

OPERATIONS PLAN

What	Who	How	When
610 List the evaluation questions			
620 Establish any preferred standards of program success			
630 Select/construct measures of learner objectives			
640 Select/construct measures of each evaluation question			

What	Who	How	When
650 Validate measures			
660 Determine data collection procedures			
670 Collect data			
680 Analyze data			
690 Describe results			
700 Compare results with preference standards			
710 Interpret results			
720 Recommend program changes			
730			
740 Prepare evaluation report			
750 Submit report to decision-makers			